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# ENVIRONMENTAL ASSESSMENT BOARD

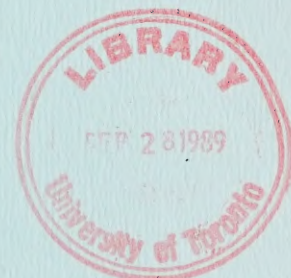
VOLUME: 137

DATE: Tuesday, September 19th, 1989

BEFORE: M.I. JEFFERY, Q.C., Chairman

E. MARTEL, Member

A. KOVEN, Member



FOR HEARING UPDATES CALL (TOLL-FREE): 1-800-387-8810

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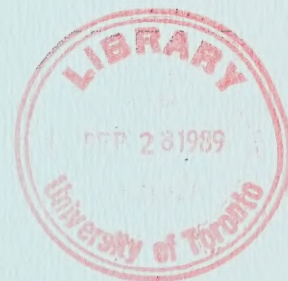
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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL  
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR  
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental  
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental  
Assessment for Timber Management on Crown  
Lands in Ontario;

- and -

IN THE MATTER OF a Notice by the  
Honourable Jim Bradley, Minister of the  
Environment, requiring the Environmental  
Assessment Board to hold a hearing with  
respect to a Class Environmental  
Assessment (No. NR-AA-30) of an  
undertaking by the Ministry of Natural  
Resources for the activity of timber  
management on Crown Lands in Ontario.

-----

Hearing held at the Ramada Prince Arthur  
Hotel, 17 North Cumberland St., Thunder  
Bay, Ontario, on Tuesday, September 19th,  
1989, commencing at 8:30 a.m.

-----

VOLUME 137

BEFORE:

MR. MICHAEL I. JEFFERY, Q.C.	Chairman
MR. ELIE MARTEL	Member
MRS. ANNE KOVEN	Member





A P P E A R A N C E S

MR. V. FREIDIN, Q.C.)	MINISTRY OF NATURAL
MS. C. BLASTORAH )	RESOURCES
MS. K. MURPHY )	
MS. Y. HERSCHER )	
MR. B. CAMPBELL )	MINISTRY OF ENVIRONMENT
MS. J. SEABORN )	
MR. R. TUER, Q.C.)	ONTARIO FOREST INDUSTRY
MR. R. COSMAN )	ASSOCIATION and ONTARIO
MS. E. CRONK )	LUMBER MANUFACTURERS'
MR. P.R. CASSIDY )	ASSOCIATION
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	and WINDIGO TRIBAL COUNCIL
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MR. R. COTTON	BOISE CASCADE OF CANADA
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MR. R. BARNES )	ASSOCIATION
MR. R. EDWARDS )	NORTHERN ONTARIO TOURIST
MR. B. McKERCHER)	OUTFITTERS ASSOCIATION





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MR. J.W. HARBELL) MR. S.M. MAKUCH )	GREAT LAKES FOREST
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MR. D. KING	VENTURE TOURISM ASSOCIATION OF ONTARIO
MR. D. COLBORNE	GRAND COUNCIL TREATY #3
MR. R. REILLY	ONTARIO METIS & ABORIGINAL ASSOCIATION
MR. H. GRAHAM	CANADIAN INSTITUTE OF FORESTRY (CENTRAL ONTARIO SECTION)
MR. G.J. KINLIN	DEPARTMENT OF JUSTICE
MR. S.J. STEPINAC	MINISTRY OF NORTHERN DEVELOPMENT & MINES
MR. M. COATES	ONTARIO FORESTRY ASSOCIATION
MR. P. ODORIZZI	BEARDMORE-LAKE NIPIGON WATCHDOG SOCIETY





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MR. P.D. McCUTCHEON

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MR. C. BRUNETTA

NORTHWESTERN ONTARIO  
TOURISM ASSOCIATION





I N D E X   O F   P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
<u>JOHN McNICOL,</u>	
<u>FRANK D. KENNEDY,</u>	
<u>J. JOSEPH CHURCHER,</u>	
<u>RICHARD WILLIAM GROVES,</u>	
<u>HARTLEY MULTAMAKI,</u>	
<u>ALBERT BISSCHOP,</u>	
<u>ROGER W. DAVISON,</u>	
<u>ROBERT THOMAS FLEET, Resumed</u>	23136
Continued Direct Examination by Mr. Freidin	23136



I N D E X   O F   E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
832	Copy of six-page document re: Document 2, Part 7, Maximum Allowable Depletion (Pages A-F).	23138
833	Hard copy of overhead documents re: Document 2, Part 8, Eligibility and Preliminary Areas of Concern (Pages A-D).	23188
834	Eligibility Map contained in Appendix D, Book 2, Red Lake Crown Plan.	23217
835	Overlay No. 1 for the map of the Timmins Forest (Exhibit 301).	23233
836	20-year Preliminary Areas of Concern and Primary Road Corridor Options Map.	23236
837	Documents re: Part 9, Document 2, primary road corridors (Pages A-D).	23242
838	Map depicting primary road corridors, Timmins.	23251
839	Valhalla Road Options map.	23263
840	Allocation Map for Harvest, Renewal and Maintenance Areas, Part A.	23281
841	Map depicting Road No. 9, Jamie Mine Road.	23284
842	Hard copy of overhead entitled: Selection of Areas for Operations.	23289
843	Roads and Allocation Map, Base map No. 513934 at a scale of 1:15,840.	23301





1 ---Upon commencing at 8:35 a.m.

2 THE CHAIRMAN: Good morning. Be seated,  
3 please.

4 Are you ready, Mr. Freidin?

5 MR. FREIDIN: Yes.

6  
7 JOHN McNICOL,  
8 FRANK D. KENNEDY,  
9 J. JOSEPH CHURCHER,  
10 RICHARD WILLIAM GROVES,  
11 HARTLEY MULTAMAKI,  
ALBERT BISSCHOP,  
ROGER W. DAVISON,  
ROBERT THOMAS FLEET, Resumed

12 CONTINUED DIRECT EXAMINATION BY MR. FREIDIN:

13 Q. Mr. Kennedy, we completed Part 6 of  
14 Document 2 last week and I understand that before we  
15 actually start with the balance of Document No. 2 there  
16 are just a few remarks you would like to make regarding  
17 one of the overview figures that's contained in the  
18 witness statement?

19 MR. KENNEDY: A. Yes. I thought it  
20 would be helpful to perhaps just start off this week  
21 with a very brief review and a reminder that there is  
22 an overview of the contents of the timber management  
23 plan at page 123 of Exhibit 813A, and I would like  
24 people to take a look at that Figure 1.

25 Q. Okay.

1                   A. And indicate that going on the  
2 left-hand side of the numbering, that we are about to  
3 start off today discussing Part 7 of Document 2, which  
4 is maximum allowable depletion, you know, which as on  
5 this Figure 1 is shown as 4.10, to the left of that it  
6 says: How Much.

7                   What we were able to deal with last week  
8 during the evidence was the items that deal with the  
9 administration and physical description of the area;  
10 report of past forest operations we talked about as  
11 being all part of assembly and analysis of background  
12 information; we discussed objectives and strategies;  
13 and silvicultural ground rules.

14                  So we start off this morning then with a  
15 discussion of maximum allowable depletion. I would  
16 like to draw your attention just briefly to Section  
17 4.11 which is titled: Allocation. Pretty much the  
18 balance of today will be spent discussing Section 4.11.

19                  You can see on this chart it's quite  
20 large and deals with subjects of: when, where, how  
21 much, and what activities will be taking place in the  
22 timber management plan. We will be discussing that  
23 aspect as well as the aspects of supplementary  
24 documentation that's involved in each one of those  
25 elements.



1                   So that's a very quick overview of what  
2 we will be dealing with today in relation to Document  
3 2.

4                   MR. FREIDIN: Okay. I would like to file  
5 as the next exhibit, Mr. Chairman, copies of some  
6 overheads and also some other documents which will be  
7 referred to by this panel. They are contained in the  
8 package in the order I think that they will be referred  
9 to. Perhaps we could mark them documents re: Part --  
10 Document 2, Part 7.

11                  THE CHAIRMAN: As a separate exhibit?

12                  MR. FREIDIN: Yes. And also add the  
13 words, I think just for the reporter, Maximum Allowable  
14 Depletion, just so we know the title. And there are  
15 six pages, I would ask that it be given an exhibit  
16 number and each page be marked A through F.

17                  THE CHAIRMAN: Exhibit 832A through F.

18                  MR. FREIDIN: (handed)

19                  THE CHAIRMAN: Thank you.

20       ---EXHIBIT NO. 832: Copy of six-page document re:  
21                               Document 2, Part 7, Maximum  
                              Allowable Depletion (Pages A-F).

22                  MR. FREIDIN: Q. Okay. Mr. Kennedy,  
23 could you outline the approach that you are going to be  
24 taking to the subject of maximum allowable depletion?

25                  MR. KENNEDY: A. Yes. We'll be using a

1 series of overheads to help us through this particular  
2 part of the evidence. Mr. Multamaki and I will be  
3 discussing the details of maximum allowable depletion.

4 I should point out that this subject  
5 matter has been dealt with in some detail in Panels 3  
6 and 4 by Dr. Osborn and Mr. Gordon. They were dealing  
7 with the OWOSFOP calculation at the provincial level  
8 and there's a discussion of that model and its  
9 relationship to the purpose of the undertaking, and I  
10 think it's important now that we have a look at the  
11 same kind of information, yield regulation, forest  
12 regulation and have a look at it at the management unit  
13 level.

14 So what we will be doing is taking a look  
15 at a MAD calculation and, more specifically, the inputs  
16 that are used in the calculation, as well as the kind  
17 of outputs that are achieved at the end of having  
18 performed the calculation.

19 This particular set of outputs then will  
20 be looking at in Mr. Osborn -- in Dr. Osborn's terms  
21 would be wood today/wood tomorrow would be the time  
22 horizons that we're looking at, and we'll also be  
23 discussing the traceability of those items that we've  
24 mentioned and the documentation requirements that are  
25 relative to the timber management plan.

1                   Q. I understand then that the evidence  
2 will basically be concentrating on the last three  
3 bullets on Exhibit 832A?

4                   A. That's correct. In Panel 3 there was  
5 a -- and 4 there was a fair amount of information  
6 concerning the theory behind the use of a maximum  
7 allowable depletion calculation and there was  
8 discussion of the origin of the calculation which is  
9 relatively new in comparison to the manner in which the  
10 yield regulations were calculated in the previous  
11 planning process.

12                   The items that are listed on this  
13 overhead: MAD As a Forecasting Tool, in that MAD  
14 provides a benchmark which regulates the amount of area  
15 that is harvested or depleted within the five-year  
16 term, and that the control or regulation occurs on a  
17 area basis, and that there's associated volumes that  
18 can be calculated in relation to that area, are all  
19 subject matters that have been dealt with in Panels 3  
20 and 4.

21                   I will put them up on this overhead as a  
22 reminder. It's the last three bullet points on Exhibit  
23 832A that we will be dealing with in this particular  
24 part of the evidence and, that is: That the MAD is  
25 recalculated every five years in order to keep the



1 information current and that occurs with the scheduled  
2 renewal of a timber management plan; that the inputs  
3 that are used are based on local knowledge and the  
4 forest conditions at the time of the scheduled renewal;  
5 and that the results of the calculation are used to  
6 examine the changes in forest structure, that being the  
7 age-class distribution and, therefore, the amount of  
8 wood supply, and we will be looking at over the short,  
9 medium and long-term time frames.

10 Q. I would like to refer you to page 126  
11 of Exhibit No. 4, Mr. Kennedy, that's the Environmental  
12 Assessment Document.

13 MR. MARTEL: What page?

14 MR. FREIDIN: Page 126.

15 MR. MARTEL: Thank you.

16 MR. FREIDIN: Q. And in the first full  
17 paragraph on that page, Mr. Kennedy, it describes the  
18 fact that maximum allowable depletion is determined for  
19 each working group or forest unit, and in the second  
20 sentence it indicates that:

21 "A number of criteria are incorporated  
22 into the repetitive mathematical  
23 calculation and the results of those  
24 calculations are analysed and an  
25 appropriate maximum allowable depletion

1 is selected."

2 I would ask that you explain the  
3 reference to the appropriate maximum allowable  
4 depletion being something which is selected?

5 MR. KENNEDY: A. Yes. There are a  
6 number of calculations that are performed for each  
7 forest unit and those calculations are based on a  
8 variety of variables that are inputted into the  
9 calculation. I think perhaps the way to get started  
10 into this is to have people refer to page 73 of Exhibit  
11 7, the Timber Management Planning Manual. That is page  
12 73 of the Timber Management Planning Manual, Exhibit 7.

13 MR. FREIDIN: It's a table, Mr. Chairman,  
14 Table 4.13, Criteria for MAD Calculation.

15 MR. KENNEDY: And what I would like to  
16 indicate is that the MAD is selected from a number of  
17 computer runs that are done to help determine the  
18 short, medium and long-term time frame implications,  
19 and those different computer runs are dependent upon  
20 the variables which are used as inputs.

21 The final variables that are used are  
22 recorded in Table 4.13, but I think it's important to  
23 realize the origin of that information. And if you  
24 were to keep this page open and now turn to page 57 of  
25 the same exhibit, what I would like to demonstrate is

1 the flow of information from the Table 4.9, which is a  
2 summary of Crown production forest area by working  
3 group by age-class, which is assembled during the  
4 assembly/analysis of background information stage, this  
5 table is prepared using the forest resource inventory  
6 information and is presented here in a summary form.  
7 This table is by working group.

8 If you were to flip now to Table 4.13 at  
9 page 73 you will see down the left-hand side of that  
10 table a column that is titled: FU. FU is referring to  
11 forest unit. What forest units are, are a combination  
12 of working groups that are combined for the purposes of  
13 management. I say combinations of working groups, it  
14 may not be an entire working group is added together  
15 with another one; there may be portions of working  
16 groups that are added together to create a new forest  
17 unit. This would be done because the intended  
18 management would be the same for those portions of the  
19 old working group. So this becomes one of the sets of  
20 variables that are used entering the calculation.

21 When we go to Mr. Multamaki's examples  
22 this will become clearer where there is a demonstration  
23 of the kind of combinations that have occurred to go  
24 from a working group to a forest unit.

25 This is an important aspect because the



1 calculations that are performed are performed for the  
2 forest unit and the resulting management that occurs on  
3 the management does relate back to this very initial  
4 step of combining working groups or portions of them to  
5 a forest unit so that the subsequent decisions that are  
6 made throughout the plan reflect the conditions on the  
7 forest and the management direction.

8 If you were to now look at Table 4.13 and  
9 look at the items across the top of the page, the  
10 rotation or cutting cycle, regen success, et cetera,  
11 they are those items that I consider to be a second set  
12 of variables that are used in the calculation and those  
13 items or criteria are determined for each one of the  
14 forest units.

15 The rotation or cutting cycle, the second  
16 column, is referring to the rotation age or the number  
17 of years over which you intend to manage that  
18 particular forest unit. For instance, in spruce it  
19 would be common to have a rotation age in the order of  
20 90 years.

21 THE CHAIRMAN: Could you just go over  
22 very briefly, Mr. Kennedy, how you determine what will  
23 be a forest unit? What does it correspond to?

24 It doesn't correspond to necessarily a  
25 group of -- a working group, per se, you say it

1 corresponds to perhaps a number of working groups or  
2 parts thereof put together. But what's the criteria  
3 you use to say that is the geographic area that we want  
4 to consider to be a forest unit for these management  
5 purposes? How do you determine that?

6 MR. KENNEDY: Okay. At this particular  
7 stage in the process we are not looking at geography at  
8 all, we are -- so there's no geographic identification  
9 with a forest unit at the outset.

10 One of the ways I like to think of it is  
11 to recall the evidence given by Dr. Osborn when he  
12 described the forest resource inventory and described  
13 the individual forest stand records that are recorded  
14 would represent each one of the stands out there in the  
15 forest, and he had indicated that a working group was  
16 the collection of those stands that have a primary  
17 species in them.

18 So in jack pine, a working group would  
19 contain stands that have in the order of 30 per cent or  
20 greater jack pine and the jack pine is the predominant  
21 species in those particular stands.

22 The way that I like to think of forest  
23 unit is that those individual forest stand records are  
24 reshuffled, as a deck of cards might be, and the  
25 reshuffling takes into account the kind of conditions

1       that you see in the forest and the kind of management  
2       intentions that you would like to carry out in the land  
3       base.

4               So, for instance, if you have a land base  
5       that is more suitable for growing jack pine, it may be  
6       possible to create a forest unit that deals with jack  
7       pine. Into that forest unit I would take from the  
8       forest resource inventory those portions of the jack  
9       pine working group that had high jack pine content and,  
10      in addition to that, I would add in stands that were in  
11      the spruce working group that had high -- excuse me,  
12      that had high spruce content but also had a component  
13      of jack pine and the decision that I had to make at  
14      that point was to manage those spruce stands to produce  
15      jack pine. So I would add those two sets of records  
16      together and call it a jack pine forest unit.

17             I would then go about the rest of the  
18      management on those -- for those stands with the  
19      intention of producing jack pine, even though  
20      originally some of those stands would have had spruce  
21      as their predominant component.

22             THE CHAIRMAN: And who does that  
23      delineation into forest groups? Once it's done, does  
24      anybody else that works on the MAD calculation  
25      automatically assume that that forest unit is as set



1 out, or is the person doing the MAD calculation also  
2 responsible for determining what constitutes a forest  
3 unit?

4 MR. KENNEDY: Okay. It's done in the  
5 planning team context; however, what I should point out  
6 is that this particular portion of the timber  
7 management plan is pretty much left up to the  
8 professional forester who is capable of doing it  
9 through his or her training as well as the necessary  
10 support staff that is working with them.

11 The individual doing the calculation is  
12 most often the forester, there may be other individuals  
13 involved in it, but that determination is, I would say,  
14 the forester's prerogative and occurs by the forester  
15 as they enter into the plan.

16 The delineation in this case is not  
17 occurring geographically at this time, it is occurring  
18 almost on a conceptual basis in that it's reshuffling  
19 the reforest resource inventory.

20 Now, when that reshuffling occurs, in  
21 order that others can review that information and see  
22 exactly what is taking place, there are a series of  
23 tables that are now included in the timber management  
24 plan as a result of a revision that we undertook, I  
25 believe it was in April of '87.

1                   If I could refer you now to Tables 4.13.1  
2                   and 4.13.2, which you can find on page 75 and -- excuse  
3                   me, page 75 is incorrect. When we edit the revisions  
4                   to the Timber Management Planning Manual, at this point  
5                   we inserted two new tables to be able to track this  
6                   particular development of the forest unit. So between  
7                   page 74 and 75 there are two new tables, Tables 4.13.1  
8                   and 4.13.2.

9                   The way in which I have numbered them in  
10                  my manual is to give them the following: 74-1 is Table  
11                  4.13.1, there are instructions on the back which become  
12                  74-2; and 74-3 is Table 4.13.2.

13                  So, Mr. Chairman, the importance of  
14                  having these tables in the timber management plan is  
15                  that it gives all individuals an opportunity to retrace  
16                  the steps that the individual has taken in order to  
17                  realign his land base prior to getting into the maximum  
18                  allowable depletion calculation. It serves then as a  
19                  record of, in some ways, as the thinking process that  
20                  has occurred. It is a record of the decisions that  
21                  were made. It can be recreated by individuals during  
22                  the review and approval process, if necessary, and we  
23                  will be discussing that in evidence in relation to  
24                  Document 3.

25                  MR. MARTEL: Can I ask a question before

1       you go just past that, Mr. Kennedy. Once you've  
2       reshuffled the deck and you've recorded it all, at that  
3       stage then you try to determine the units you're going  
4       to -- what you are going to combine and establish the  
5       working units on that basis, or how far apart; I mean,  
6       you try to get them contiguous, I presume?

7                       MR. KENNEDY: Again, Mr. Martel, this is  
8       being done not in a geographic sense. We aren't  
9       delineating on a map units that fall into each one of  
10      these categories. We keep the forest resource  
11      inventory maps in their form as an inventory, as a  
12      reference and, associated with those, we have forest  
13      resource inventory ledgers which are a collection of  
14      individual stand listings that refer to every stand  
15      that is typed on those forest stand maps.

16                      We do not make the connection between the  
17      forest unit and a remapping, if you would, of the  
18      forest resource inventory because changes will occur in  
19      the forest land base. There is the natural changes  
20      that occur through successional, as well as the changes  
21      that occur through disturbance and we re-examine those  
22      forest unit combinations at the scheduled renewal of  
23      each timber management plan and we rely on that  
24      inventory information in the form that forest resource  
25      inventories are done to provide us a similarity in

1 information for each one of the management units across  
2 the province.

3 MR. FREIDIN: Q. Now, Mr. Kennedy, you  
4 indicated that the calculation or the determination of  
5 whether you will have a forest unit is the prerogative  
6 of the forester. Would it in most cases be the same  
7 forester that made the decision to create forest units  
8 that would actually calculate the maximum allowable  
9 depletion during the planning process for each of those  
10 forest units?

11 MR. KENNEDY: A. Yes, it would be. It  
12 would be the same individual that is setting out the  
13 forest unit criteria -- or sorry, excuse me, the forest  
14 unit land base which is shown on page Table 4.13 on the  
15 left-hand side, detailed in subsequent Tables 4.13.1  
16 and .2, as well as the same individual who is  
17 determining the balance of the criteria on Table 4.13.

18 Q. Now, you indicated that in relation  
19 to Tables 4.13.1 and 4.13.2 that they are a record of  
20 the thinking of the forester who created the forest  
21 units and that the people who do plan review and  
22 approval can sort of take a look at the thinking and  
23 review that decision.

24 Would that same record also allow, say, a  
25 new forester that might hypothetically come into the



1 planning process in the middle after forest units had  
2 been created to carry on and do the maximum allowable  
3 depletion if necessary; that is, if the information in  
4 4.13.1 and .2 have been finished?

5 A. Yes, that's correct. It would be  
6 possible to have someone else come in at that stage of  
7 the timber management plan preparation and complete the  
8 calculations using that information. It would also be  
9 possible for someone to come in after the plan had been  
10 completed and retrace the steps involved.

11 Q. Thank you.

12 A. I believe I left off on Table 4.13  
13 out of Exhibit 7 which is on page 73, and I just  
14 finished discussing the second column entitled:  
15 Rotation, which is simply a recording of the rotation  
16 age that the forest unit is to be managed on.

17 The Per Cent Regeneration Success, the  
18 third column, is recording the success rates that the  
19 forester expects to achieve on that forest unit. Those  
20 regeneration success rates are determined by looking at  
21 the previous experience on the unit, the results that  
22 have been achieved using past practices and a -- excuse  
23 me, the decision then is recorded as to the results of  
24 past practices relative to how much of the area in each  
25 one of those forest units will remain in that forest

1 unit, and we are terming that regeneration success.

2 To determine that figure, a forester  
3 would be looking at such items as plantation survival  
4 records, stocking records, free to grow survey results,  
5 information that we presented in Panel 7.

6 The next column titled: Years to Free to  
7 Grow is an estimate of the time that is required after  
8 harvest to return those areas to a state of being free  
9 to grow. A common range of years would be -- in this  
10 particular part of the table would be five to seven  
11 years if you are dealing with jack pine, perhaps longer  
12 if you are dealing with spruce species.

13 The next column, the second last one is  
14 titled: Roads and Landings as a Per Cent. This is a  
15 number that is used in some of the calculations, some  
16 of the MAD calculations to indicate the amount of area  
17 that is being used for roads and landings.

18 If you were to think of a new management  
19 unit where operations had not occurred before, there  
20 would be a certain amount of area that is lost to  
21 future production as it would be put into roads and  
22 landings, so it would be establishing an infrastructure  
23 on the management unit, and those areas are withdrawn  
24 from the calculation in order that the calculation does  
25 not assume that they are available for growing trees

1       into the future.

2                       The last part of that Table 4.13, NSR  
3       Renewal Rate, is an indication of the amount of the NSR  
4       categories that will be renewed in the five-year term  
5       and put back into production. So it is this range of  
6       variables then on Table 4.13 that are used as inputs  
7       into the maximum allowable depletion calculation.

8                       On the left-hand side of the paper there  
9       is a recreated land base, if you will, which is  
10      combined under the heading of Forest Units and then for  
11      each one of those forest units there are individual  
12      criteria that are recorded as to the style of  
13      management that will occur for those.

14                      Q. Mr. Kennedy, could I just refer you  
15      back to the third column on Table 4.13, the  
16      regeneration success, and could you just again  
17      indicate -- or could you perhaps just indicate: How is  
18      that percentage of regeneration success expressed? Is  
19      there any indication on the back of the table that  
20      deals with that?

21                      A. In this particular -- excuse me, it  
22      is expressed as a percentage and the percentage relates  
23      to the amount of area that is expected to reach free to  
24      grow in the years that are shown in the fourth column,  
25      in that number of years, and is expressed as a

1 percentage of the area that is harvested.

2 So for instance, if I was on a management  
3 unit that had a very good ability to regenerate jack  
4 pine and if it was possible to regenerate jack pine --  
5 if I had declared my years of free to grow to be five,  
6 I would not be surprised to see a figure in  
7 regeneration success in the magnitude of 95 to 100 per  
8 cent. That would be an indication that the forester  
9 felt that of all the areas that were harvested, 95 to  
10 100 per cent of them could be returned to free to grow  
11 status within five years.

12 Q. Now, if you had -- let's use the  
13 number 95 per cent as the area you felt could be  
14 returned to free to grow, that would mean free to grow  
15 in the jack pine working group?

16 A. That's correct. Excuse me, it would  
17 be return to free to grow in that forest unit.

18 Q. In that hypothetical then there would  
19 be 5 per cent which would not return to the jack pine  
20 working group or forest unit in this case; that area  
21 would, nonetheless - as indicated by Mr. Armson - have  
22 a forest regenerated on them, but they would go into  
23 perhaps a different forest unit or working group; is  
24 that correct?

25 A. It's possible that it could go into



1 another forest unit. If, say, on the jack pine areas  
2 that had not regenerated to jack pine, a number of  
3 situations could result: It could be that the area  
4 simply needs longer, that it has not reached the jack  
5 pine free to grow standards in the five years and may  
6 take longer, it may be that there is a high spruce  
7 content on those areas and that it has returned to the  
8 spruce forest unit.

9 Q. Now, Mr. Kennedy, if you have numbers  
10 in Table 4.13 for the spruce forest unit or spruce  
11 working group and you have the numbers across the page,  
12 are those numbers the only numbers which are attributed  
13 to the various criteria in Table 4.13?

14 A. They are the only numbers that -- or,  
15 excuse me. Table 4.13 is used to record the final set  
16 of numbers for the selected MAD. Now, we set out with  
17 an explanation of what selected MAD meant and what I  
18 would like to indicate is that there are a number of  
19 combinations of criteria that a forester uses in the  
20 MAD calculations.

21 The way I like to think of it is that  
22 there are a number of MAD runs or outputs produced  
23 using the computer model for each forest unit. So, for  
24 instance, it may be possible -- or, not possible -- a  
25 forester varies the criteria that is used as inputs to

1 the model and ends up with a number of different runs.  
2 These computer runs are then analysed and the most  
3 preferred one is selected.

4 Because there is a relatively narrow  
5 range of criteria that are shown here, there isn't that  
6 many combinations of criteria that are analysed. For  
7 instance, in the case of spruce that we were talking of  
8 where the rotation age was 90, a forester might also  
9 look at the implications of managing the spruce forest  
10 unit on a 100-year rotation or perhaps an 85-year  
11 rotation and produce different MAD runs for each one of  
12 those criteria and determine the impacts of those  
13 individual MAD runs on the short, medium and long-term  
14 wood supply on the management unit.

15 I think at this point it would be helpful  
16 to have a look at one of the outputs that are achieved  
17 from a MAD run and I would like to refer people to  
18 Exhibit 832B. This is an example that is taken from  
19 Appendix B or C I believe in the Red Lake Timber  
20 Management Plan and this is an example of the kind of  
21 output that was produced by the calculations that were  
22 used in the Red Lake District at the time the Red Lake  
23 plan was prepared.

24 MR. FREIDIN: Excuse me. Do you have  
25 that, Mr. Chairman? That is the document we filed this

1 morning, 832 -- the second page, 832B.

2 THE CHAIRMAN: All right.

3 MR. KENNEDY: Now, this is an example of  
4 an output. This is for the spruce working group and  
5 what we intend to do is to provide some information on  
6 how to interpret this information and indicate the  
7 manner in which the outputs -- excuse me, the inputs  
8 are shown in this particular model as well as the  
9 manner that the information can be interpreted.

10 I would like to refer you now to Exhibit  
11 832C which is the next page in the bundle which we have  
12 also produced in an overhead form and our overhead has  
13 a number of colours on it which I think will help with  
14 the interpretation of this MAD run.

15 Mr. Chairman, the reason that we are  
16 spending some time on this particular part of the  
17 evidence is that we will be showing examples of how  
18 this particular MAD run has been interpreted by Mr.  
19 Multamaki in his determination of which combination of  
20 criteria was most desirable to be able to produce wood  
21 in the wood today/wood tomorrow situation as Dr. Osborn  
22 had discussed in Panels 3 and 4.

23 So in an effort to provide some clarity  
24 to this information, we have duplicated the top portion  
25 of this table which is Exhibit 832B on to Exhibit 832C

1 and provided some notation to the information.

2 So you will see in the area shown in  
3 yellow, which is at the top of the page on 832C, where  
4 the criteria from Table 4.13 is used as an input to the  
5 MAD calculation, those would be the information that  
6 runs across the table.

7 The information that is related to the  
8 individual forest unit and the kind of forest structure  
9 that is on the forest unit at the start of the  
10 calculation is shown in the line that is coloured in  
11 orange which has an arrow attached to it which is  
12 starting the age-class distribution and there is a  
13 reference to the two Tables 4.13.1 and .2. Now, those  
14 are the two pieces of information that are taken from  
15 Table 4.13 and used as inputs into the MAD calculation.

16 Now, if I could take your attention to  
17 832C and perhaps start at the top of the page and work  
18 through to that point and then discuss the outputs that  
19 are achieved.

20 So at the top of the page then there is  
21 some administrative information that deals with the  
22 district and the management unit. In this case the  
23 working group forest unit is shown as being spruce,  
24 there is an indication that all the site classes have  
25 been combined, that is another -- site class is another



1 criteria which may be used to combine working groups in  
2 forest units.

3 The growth period on this chart is shown  
4 as 90 which is synonymous with rotation age; the  
5 regeneration success figure of 65 is used; the years to  
6 free to grow is 10. There is an item that is titled as  
7 delay which is a factor which has been included in the  
8 model to allow the forester to vary the time between  
9 when harvest has occurred and the time when the renewal  
10 period is undertaken -- when the renewal activities are  
11 undertaken.

12 The period length in this case is  
13 referring to the fact that we are looking at  
14 recalculating the MAD every five years and the number  
15 of periods shown here is 20, which is an indication of  
16 the number of repetitive calculations that are being  
17 performed. So in this case five times 20 gives us a  
18 hundred years. So this particular output is going to  
19 model the conditions on the forest, the age-class  
20 structure and model the impacts of harvesting for 100  
21 years.

22 The next information that can be seen  
23 then, on the left-hand side of the exhibit there is a  
24 column titled: Time. The first categories of actual  
25 and normal do not relate to time; they are relating to

1 an age-class distribution.

2 If you could skip those for a moment and  
3 look at end of year five, this is where the time scale  
4 is indicated, and if you were to look at Exhibit 832B  
5 go down the left-hand side you can see that the time  
6 elements are shown from 5, 10, 15, 20 and so forth up  
7 to 100 years.

8 Across the top of that chart then is a  
9 number of pieces of information. There is accel, which  
10 is referring to an acceleration rate which is one of  
11 the factors that is determined in the calculation.  
12 There is NSR 5 and other, which are categories of land  
13 base that are used.

14 And what I would like to draw your  
15 attention to is the balance of the categories there  
16 which is 11-20, 21-40 and you recognize those as being  
17 the age-class distributions -- I'm sorry, the  
18 individual age-classes that have been discussed by Dr.  
19 Osborn in Panel 3 in relation to the forest resource  
20 inventory.

21 The AAC base is referring to the base  
22 that is used in the calculation. It is in fact the  
23 total of the area that is in other, up to 121, and the  
24 total column on the far right is the total of the land  
25 base that is there on the management unit for each one

1 of the forest units.

2 Now, the way in which the model starts  
3 then is to use the age-class distribution of the forest  
4 for each one of the forest units at the outset. Now,  
5 that is the first line that is shown as actual. So the  
6 forester is extracting information that is contained in  
7 4.13 -- Tables 4.13 through 4.13.2 and that information  
8 has been summarized from the forest resource inventory  
9 and is using that as the starting point in the  
10 calculation.

11 The next line that is shown is normal.  
12 Now, you have also heard evidence in Panel 4 of the  
13 desire of foresters to move towards a normal age-class  
14 distribution where there is an equal amount of area in  
15 each one of the age-classes so that when rotation age  
16 is reached there is a regular amount of wood available  
17 off the management unit.

18 You have also heard evidence from Dr.  
19 Osborn that this is a theoretical ideal that is  
20 practically never achieved. The purpose of recording  
21 it though here in the MAD calculation is that it serves  
22 as a comparison; a forester is able to compare the  
23 age-class distribution that is present on the forest  
24 management unit at the outset of management to the  
25 theoretical ideal and arrives them -- allows them to

1 compare the kind of efforts that are required to bring  
2 the forest into a managed state.

3 In a few moments we will be looking at  
4 examples that Mr. Multamaki is using. These are the  
5 numbers that he has encountered on his management unit  
6 and we will be using a number of histograms that deal  
7 with the age-class distribution and we will be able to  
8 see the movement of the Red Lake Crown Forest, in this  
9 case the spruce forest unit, to a more normalized state  
10 over the first rotation.

11 I would like to direct your attention now  
12 to the next line which is titled: Cut 1 and the number  
13 that is on the far right-hand side. The number that I  
14 am looking at is 6,847 and this is one of the outputs  
15 from the calculation. This in fact is the first  
16 output. This is the amount of area that we refer to as  
17 the five-year MAD level. So this number 6,847 refers  
18 to the number of hectares that could be harvested over  
19 the first five years.

20 The next line -- excuse me, I should also  
21 point out that if you move to the left you will see  
22 that that 6,847 is shown in the column of 121 plus.  
23 You will recall the evidence of Dr. Osborn again that  
24 the models that are used assume that the oldest trees  
25 in the forest are being harvested first. So as such,



1       this is a demonstration of the area being harvested  
2       from the 121-year age-class. With that assumption in  
3       mind, the model then produces a new age-class  
4       distribution at the end of the five years.

5               Now, it's making the assumption that the  
6       area has been harvested from the oldest age class, it  
7       also makes allowances for the growth in the forest over  
8       that five years and, if you will, shifts individual  
9       hectares from one age-class to the next. It uses the  
10      information that is in the top of the table, the  
11      inputs -- the criteria that we talked about and  
12      modifies the forest description -- sorry, modifies the  
13      age-class distribution of the forest and provides us  
14      with a new age-class distribution that results at the  
15      end of the five years of harvest.

16             So, for instance, in the -- looking now  
17      at the 121 column and reading down, a forester  
18      interprets that they started off with 10,641 hectares  
19      on his management unit in the spruce forest unit.  
20      During the first five years of management 6,847 of  
21      those hectares have been harvested and the resulting  
22      age-class that is left there entering the next term of  
23      the plan is 7,913.

24             The number is not a simple subtraction  
25      because five years of time have passed and enters a

1 number of hectares that were in the 101 to 120-year  
2 age-class that have now reached five years older and  
3 have, hence, moved into the 121-year age-class.

4 The purpose of going through this, as I  
5 indicated, is to allow Mr. Multamaki to hopefully  
6 discuss with much more ease than I have been able to  
7 the kind of results of the maximum allowable depletion  
8 calculations and to allow him to be better equipped to  
9 demonstrate the kind of interpretation of the  
10 information that is possible and also to demonstrate to  
11 you the fact that there is -- with some training, it is  
12 possible to interpret this information and to look at  
13 woodflow in the short term, as we have here at five  
14 years.

15 And if you were to look now at Exhibit  
16 832B down the left-hand side you will see that there  
17 are a number of rows of information that are repeated.  
18 I am looking now at Cut 2, end year 10, and normal.  
19 There is a repetitive calculation that is performed for  
20 each one of the five-year terms.

21 As you go down the page you will see that  
22 Cut 6 is occurring at the end of year 30, Cut 10 is the  
23 end of year 50. It is by analysing the information at  
24 different parts of the MAD output that it's possible to  
25 look at wood supply in the medium term.

1                   If you were to go towards the bottom of  
2     Exhibit 832B and look at Cut 18, end of year 90, and  
3     recalling that this is a 90-year rotation, it's also  
4     possible to look at the impacts of harvesting and  
5     management over a full rotation; so, in this case, the  
6     long term.

7                   MR. FREIDIN:  Q.  What do you mean by  
8     medium term?

9                   MR. KENNEDY:  A.  When I speak medium and  
10    long term, medium term I usually think of -- I have no  
11    set number of years in mind.  The Timber Management  
12    Planning Manual requires documentation of the impacts  
13    of the calculation up to year 20 and I like to think of  
14    the medium term as being at year 20.

15                  As you go into the longer term, I recall  
16    the evidence given by Dr. Osborn is that the predictive  
17    pabilities are much less as you go beyond that 20-year  
18    period.  So I like to think of 20 as a medium term.

19                  Now, what I would like to do now is to  
20    indicate where in the timber management plan there is a  
21    recording of some of this information that deals with  
22    this woodflow in the short, medium and long term.

23                  The short term that is the subject of the  
24    five years and is the subject of the five-year timber  
25    management term of the plan and it in fact is where

1 most of the detailed information occurs and we will be  
2 discussing in detail the -- we will be discussing in  
3 detail the manner in which that MAD level is used to  
4 guide the balance of the planning. We will be  
5 discussing that primarily in relation to Part 10 of  
6 Document 2.

7 The medium term, although is addressed in  
8 Table 4.14 which, if I could draw your attention now to  
9 page 75 of Exhibit 7, the Timber Management Planning  
10 Manual, in there you will see a requirement to complete  
11 Table 4.14 which is titled: Maximum Allowable  
12 Depletion Summary.

13 It is also a requirement to include the  
14 MAD runs or the output from the calculations in the  
15 appendices to the timber management plan but, in order  
16 to have the pertinent information contained in the plan  
17 itself, Table 14 is used to record a number of key  
18 information.

19 On the left-hand side there is the  
20 descriptors: forest unit, age-class, silvicultural  
21 system and the method of calculation are descriptors of  
22 the kind of calculation used in the forest unit for  
23 which the data applies. There is a column titled:  
24 Past Five-Year Term which is where the MAD level is  
25 recorded from the previous term. The current term is



1 where the level is recorded, as is indicated, for the  
2 current term. So it would be the first line, Cut 1 off  
3 of the examples that we have been looking at in Exhibit  
4 832B.

5 There then is a section titled on that  
6 table: Projected, where the second, third and fourth  
7 five-year term MAD levels are shown. If you were to go  
8 back to Exhibit 832B it would simply be taking the  
9 first four sets of numbers off the right-hand side that  
10 deal with the individual MAD levels that are expected  
11 to occur at each of those five years and putting them  
12 in this table in a very simple fashion that allows for  
13 people to compare the change in level over that 20-year  
14 term -- excuse me, 20-year period.

15 The longer term then is documented in the  
16 form of a requiring that the MAD runs be included in  
17 the appendix and usually involve some discussion of  
18 text around the MAD run.

19 So, Mr. Chairman, I think that that  
20 serves as an introduction to the kind of information  
21 that is used in performing the MAD calculation, the  
22 kind of outputs that can be expected, and gives an  
23 indication of the -- a preliminary indication of the  
24 kind of information that can be analysed and is  
25 analysed by the foresters in determining which set of

1 criteria to use and how to manage that forest unit, a  
2 particular land base in the short, medium and long-term  
3 time horizons to ensure that we have wood today and  
4 wood tomorrow as described by Dr. Osborn.

5 MR. FREIDIN: Now, Mr. Chairman, Mr.  
6 Multamaki was going to speak to this matter, he won't  
7 be as long as Mr. Kennedy by way of introduction, but  
8 it's fairly heavy slogging I think for some people.

9 I am just wondering whether, before we  
10 deal with Mr. Multamaki's evidence, we have a break. I  
11 am prepared to continue, but just having regard to the  
12 kind of evidence, I just ask for some direction.

13 THE CHAIRMAN: Okay. Why don't we take  
14 15 minutes.

15 MR. FREIDIN: Thank you.

16 THE CHAIRMAN: Thank you.

17 ---Recess taken at 9:35 a.m.

18 ---On resuming at 10:05 a.m.

19 THE CHAIRMAN: Thank you. Be seated,  
20 please.

21 MR. FREIDIN: Q. Okay, Mr. Multamaki,  
22 following along from what Mr. Kenedy was saying, are  
23 you able to demonstrate the creation of a forest unit  
24 and the effect of doing that on the land base?

25 MR. MULTAMAKI: A. Yes, I am. If you

1 could turn to page 28 of Exhibit 814, that's Table 4.9.  
2 In this table it's broken down by forest units: jack  
3 pine, spruce, white birch, balsam fir, poplar and other  
4 hardwoods.

5 Q. That's what all those little numbers  
6 mean -- letters?

7 A. That's correct. That's the letters  
8 in the left-hand column of each of those groupings or  
9 two charts. What we will deal with for this example is  
10 the Bw in the left-hand column and the Po in the  
11 lettered column in the right-hand chart.

12 What's happened here is that we had  
13 combined for management purposes the white birch and  
14 the poplar working groups to become a hardwood forest  
15 unit. Of interest is the fact that the white birch  
16 working group, if you notice it's 704 hectares, one of  
17 the problems here is that that 704 hectares is  
18 extremely small and is difficult to regulate because of  
19 its small size. Now, if you go to Table 4.13 on page  
20 84 of the same exhibit...

21 (firetruck sirens)

22 MR. FREIDIN: They like your evidence,  
23 Mr. Multamaki.

24 THE CHAIRMAN: Too much to hope for that  
25 the place is on fire, I suppose.

1 MR. FREIDIN: We could arrange it.

2 MR. MULTAMAKI: If you look at Table 4.13  
3 on page 84 you will notice that in the left-hand column  
4 under working group, forest unit, in fact you see the  
5 term hardwoods, Hdwds. That in fact is the combination  
6 of white birch and poplar.

7 Those two species are going to be managed  
8 in the same fashion, they are going to be regulated  
9 through the same strategies and they are going to have  
10 similar rotation ages and silvicultural systems. And  
11 if you look across the table, as Mr. Kennedy has  
12 previously discussed, it will have a rotation age or  
13 cutting cycle - in this case rotation age - of 65  
14 years, regeneration success per cent of 95 per cent and  
15 years free to grow of 5.

16 MR. FREIDIN: Q. Can you give me another  
17 example of -- perhaps not from your plan, but another  
18 example of the creation of a forest unit?

19 MR. MULTAMAKI: A. Yes. One of the  
20 examples that immediately comes to mind is on the Red  
21 Lake Crown I looked at -- as the forester on the unit,  
22 I looked at the saw log situation and creating a forest  
23 unit for the production of saw logs. That would have  
24 been based on rotation age.

25 The thought was that in, for instance,



1 the jack pine working group we would have allowed the  
2 jack pine working group to grow another 10 or 15 years,  
3 you know, looking at a forest unit for jack pine saw  
4 logs that would have a rotation age of 85 or 90 years,  
5 and the same thing in fact for spruce, I looked at as  
6 well creating a forest unit with an older rotation age.

7 Q. And would you be able to break up a  
8 working group such as jack pine into two forest units  
9 based on rotation?

10 A. Yes, you could. It's a simple  
11 manipulation of the FRI information based on the stand  
12 ages in that.

13 Q. And why would you do that; why might  
14 you do that?

15 A. Well, the thought is if you're going  
16 to produce saw logs, the longer you let a stand grow  
17 the larger the diameters become in that stand of the  
18 individual trees.

19 Q. And what would be done with the --  
20 would the other forest unit with a different rotation  
21 be managed for a different purpose in that  
22 hypothetical?

23 A. Sure. In that situation I looked at  
24 managing the remainder or the other part -- or the  
25 other forest unit for pulpwood production in smaller

1 diameters.

2 THE CHAIRMAN: Can you ever manage a  
3 forest unit say that contains, say, 80 per cent of  
4 large trees that you want to ultimately have as your  
5 objective saw logging operations, the 20 per cent  
6 that's left within the same geographic area, could that  
7 be a different forest unit and you would manage it  
8 differently?

9 MR. MULTAMAKI: Yes, you could. By  
10 geographic area what happens -- when we get to the  
11 eligibility maps --

12 THE CHAIRMAN: For instance, if you have,  
13 say, 10 hectares and you are going to harvest them  
14 using a certain silvicultural harvesting method other  
15 than clearcut and there is something else left, could  
16 you go in and take out, say, the saw logs, leave  
17 everything else there standing and then come back and  
18 manage what's left in a different fashion at obviously  
19 a different rotation age from what you took out and it  
20 would then form a different forest working group?

21 MR. MULTAMAKI: The situation, as I  
22 understand it, that you are talking about is going in  
23 and selectively harvesting out the saw log material--

24 THE CHAIRMAN: Right.

25 MR. MULTAMAKI: --and allowing the

1 smaller sized material to grow up underneath.

2 In the boreal forest it's not a good  
3 silvicultural practice. What you're really talking  
4 about is taking out the high quality material and  
5 leaving the lower quality material in there, simply  
6 selecting out individual trees based on product.

7 In the boreal forest we try to practice  
8 clearcut for silvicultural reasons, and I think that  
9 was discussed in a previous panel but -- and that isn't  
10 the way that I had looked at dividing up the forest  
11 units.

12 We would still manage it on a clearcut  
13 basis, our clearcut silvicultural system, but we would  
14 have identified those older stands as one forest unit  
15 and clearcut those because they would have had a higher  
16 saw log content based on the fact they're older, the  
17 trees had more time to grow, they produce larger  
18 diameters.

19 THE CHAIRMAN: Okay.

20 MR. FREIDIN: Q. Mr. Fleet, can you give  
21 an example of the creation of a forest unit I think in  
22 the northern region where you are presently working?

23 MR. FLEET: A. Yes. In the northern  
24 region it's fairly common to take the black spruce  
25 working group, and because it occurs generally in two

1 different types of areas, lowland wetter areas and  
2 upland areas, it's common to take the spruce working  
3 group and partition it into two forest units, an upland  
4 and a lowland.

5 The management reason for doing that  
6 would be not necessarily managing for specific  
7 products, such as saw logs or pulp, in fact you may be  
8 managing for the same product in both forest units,  
9 it's just that in the lowland forest unit the rotation  
10 would be longer to develop the same -- to grow the same  
11 product, your harvest practice may be somewhat  
12 different and your reforestation program could be  
13 different than in what would be the upland forest unit,  
14 and you would anticipate a shorter rotation perhaps to  
15 get the same product in the upland spruce forest unit.

16 Q. Thank you. Now, Mr. Multamaki, could  
17 you describe the selection of a maximum allowable  
18 depletion for any one of the forest units that you  
19 identified in Table 4.13?

20 MR. MULTAMAKI: A. Yes. If you look at  
21 Table 4.13 on page 84 of Exhibit 814, we will use the  
22 spruce forest unit as an example.

23 Q. And that's the second item?

24 A. That's the second item, the Sp under  
25 working group forest unit. As you go across the table



1       you will notice that it has a 90-year rotation period,  
2       65 per cent regeneration success level and 10 years  
3       free to grow. These numbers --

4                   MS. SWENARCHUK: I'm sorry, what page are  
5       we on?

6                   MR. FREIDIN: I'm sorry, page 84 at  
7       Exhibit 814, Book 1.

8                   Q. Sorry, Mr. Multamaki.

9                   MR. MULTAMAKI: A. In here of interest  
10       is this 65 per cent regeneration success level, and we  
11       will be discussing that throughout this evidence. That  
12       incidentally was selected based on local knowledge and  
13       the existing assessment programs and so on that were  
14       run on the unit.

15                   Q. Is it --

16                   A. If we turn to Exhibit 832B which are  
17       the MAD runs for -- or the selected MAD run for spruce  
18       working group. I won't go into detail on all of the  
19       numbers within this table, I think Mr. Kennedy has  
20       dealt with that.

21                   Of importance here really are the  
22       age-class structures and changes over time. Those are  
23       the numbers that you see appearing across the top under  
24       the age-classes which are NSR 5, other, 11-20, 21-40  
25       and so on. In a minute I'll be showing histograms that

1 deal with the changes that occur throughout time to  
2 those structures.

3 If you look at Cut 1 in the left-hand  
4 column under -- I'm sorry, you will see a number that  
5 shows 6,847, that's under total in the right-hand  
6 column for Cut 1. That in fact is this five-year  
7 maximum allowable depletion level, 6,847 hectares will  
8 be -- are available through the MAD calculation for  
9 depletion.

10 Cut 2 shows 6,236. That in fact is at  
11 the end of year 10; Cut 4, if you move down the columns  
12 shows 5,535; and if you go to Cut 18, that's the long  
13 term, 90 years for rotation, it shows 4,518.

14 The point I'm making here is that it  
15 moves at year five -- or this period 6,847 to 4,518  
16 hectares being available through the MAD calculation  
17 over the long term, 90 years.

18 If you turn to D, Exhibit 832D. And, Mr.  
19 Freidin, could I get you to put up the overhead on  
20 this. Really what we are seeing in D is simple  
21 histograms that have been developed or produced from  
22 those numbers, those age-class numbers that you see in  
23 the -- you saw in the previous runs.

24 For example, at the start of year zero,  
25 that's today, you see a relatively irregular age-class

1 distribution, a large amount of material or large  
2 number of hectares in the other category, which is  
3 barren and scattered, very little in the 11-20 and a  
4 fair bit in the 101-120 and 121 plus.

5 As you move to the year -- the end of  
6 year five, the age-class distribution changes. You  
7 still see a fair bit in barren and scattered or other,  
8 and you see still a relatively irregular age-class  
9 distribution with a fair bit of material still in  
10 the -- what's considered the overmature, 121 plus and  
11 101-120.

12 As you move towards the bottom end of  
13 year 20, you see that the barren and scattered in fact  
14 has started to fall off and in fact it has moved into  
15 the 11-20, the 21-40 and so on. In fact, what's  
16 happening is that those barren and scattered areas are  
17 being regenerated and are being brought into the land  
18 base, and you see that even though the pattern is still  
19 relatively irregular, the barren and scattered have  
20 started to move in.

21 When you move to the long term, end of  
22 year 90, the final histogram, you notice that the  
23 age-class distribution is considerably less irregular  
24 than the forest that we started with or the age-class  
25 distribution that we started with. In fact what we

1 have started to do is regulate that forest over the  
2 long term, the 90-year period, and you start to see  
3 that in fact there aren't any real big discrepancies  
4 between each of the 20 age -- 20-year age-class  
5 periods.

6 Q. And when you say that we begin to  
7 regulate the forest, what do you mean by that?

8 A. What we are talking about when we  
9 mean regulation of the forest is - I think Mr. Osborn  
10 covered it - in that you have an equal amount of  
11 material or equal number of hectares in each of the  
12 age-classes up to rotation age.

13 Q. All right. He described that I think  
14 as the normal forest?

15 A. Normal forest, yes.

16 Q. Thank you.

17 A. Now, that's only one side of the  
18 story here. Really when you turn to Exhibit 832E, this  
19 is a simple line graph. What it shows for the spruce  
20 working group over the short, medium and long term is  
21 that there is a decline from 6,847 hectares at year  
22 five, that's on the left-hand side and the highest  
23 point on that line graph, to 5,535 at year 20, which  
24 would be the next dot to the right on the line graph,  
25 and at year 90, 4,518 which is on the extreme right of



1       that.

2                       What we're predicting through this line  
3       graph and through the MAD calculation is relatively  
4       even flow in the way of hectares over the period from  
5       approximately 40 to 50 years through to 90 years. That  
6       essentially means that the age-class distribution is  
7       closer to normal than it would be at the beginning of  
8       this period.

9                       Q.   Now, Mr. Multamaki, Exhibit 832E that  
10       we are looking at now and 832D, am I correct that they  
11       are based on the numbers in your computer run which is  
12       832B?

13                      A.   That's correct. What they are is  
14       they are simple points taken out or the numbers taken  
15       out of the MAD calculation as given in that premise.

16                      Q.   And the same is applicable to the  
17       next document when we get to it, 832--

18                      A.   D.

19                      Q.   --F?

20                      A.   Yes.

21                      Q.   Okay.

22                      A.   What this shows is that in fact when  
23       you move from the 6,847 down to the 4,518 that you have  
24       a decline in hectares available for depletion and in  
25       fact that we can consider taking action today to

1 address those problems in the long term or the  
2 perceived problems that may occur in the long term of  
3 going to 4,518.

4 What this line graph doesn't show and the  
5 MAD calculation doesn't show is the -- or sorry, the  
6 line graph itself doesn't show the actual ages of the  
7 trees being harvested. That's important particularly  
8 from a product standpoint. You basically have to  
9 harvest trees that are of a sufficient age and size to  
10 produce the products that industry requires.

11 If you turn to the next page, 832F, you  
12 will notice that it is essentially a line graph similar  
13 to the one -- the previous one, however, this one has  
14 got age on the size: 0-140 years, it has got at 90  
15 years a line denoting rotation age, where rotation age  
16 occurs, and across the bottom it has got the time frame  
17 in years. And what this shows is this is -- shows the  
18 points produced from the MAD calculation of what age we  
19 will be -- age-classes we will be harvesting timber  
20 from. And if you go along the bottom to 60 years you  
21 will notice at 60 years we start to dip below rotation  
22 age in the way of harvesting or depleting timber.

23 What we're talking about is depleting  
24 wood that's under rotation age for the period from 60  
25 years to approximately 90 years and then it comes back

1 up. This is the result of the age-class -- the  
2 existing age-class structure on the crown and the fact  
3 that there is a great deal of wood that's in the  
4 younger age-classes at 60 years.

5 Q. What's the significance, if any, of  
6 the information shown in that graph and the preceding  
7 Exhibits 832D and E?

8 What's that information used for, or what  
9 can it be used for?

10 A. What it really shows is it shows that  
11 in the short term -- or it allows I guess the forester  
12 or the forest manager or timber manager to see what the  
13 effects of actions today are going to be on the  
14 age-class structure of the forest over the short,  
15 intermediate and long term.

16 For example, we know or we can predict  
17 that by harvesting 6,847 hectares today over the  
18 intermediate term or the medium term we will be at  
19 5,535 or the 20-year period we will be at 5,535  
20 hectares and, in the long term, we will be at 4,518;  
21 i.e., at 90 years we will have 4,518 hectares of  
22 maximum allowable depletion. And it allows us to  
23 predict what's taking place as a result of our actions  
24 in the forest and to consider taking actions today that  
25 can address concerns that we see with this woodflow

1 picture.

2 Q. And can you advise me: Is anything  
3 planned or has any strategy been considered on the Red  
4 Lake Crown that will address this future picture in any  
5 way?

6 A. Yes. One of the situations that's on  
7 the Red Lake Crown right now is that 65 per cent  
8 regeneration success level in black spruce and that is  
9 documented in the plan in the renewal and maintenance  
10 section as having a number of strategies I guess to  
11 implement natural seeding and artificial seeding  
12 systems to attempt to deal with that 65 per cent  
13 regeneration success level.

14 Q. And where do we find that reference?

15 A. That reference is on -- starts on the  
16 bottom of page 115 in Reference 8, or Exhibit 814, and  
17 really the three points occur on page 116.

18 And in those three points you see that we  
19 talk about direct seeding techniques for black spruce  
20 in point No. 1 on page 116; point No. 2 again talks  
21 about direct seeding with site preparation and seed  
22 shelters; and point No. 3 promotes the use of natural  
23 seed sources.

24 Q. So on page -- if we look at that then  
25 under that section on Allocation for Renewal and



1 Maintenance, which we will get to in Part No. 10, if we  
2 start at the bottom of page 115 you then indicate or  
3 address the 65 per cent regeneration success for black  
4 spruce that you referred to and indicate that you plan  
5 to take some management action to address that  
6 particular number?

7 A. Certainly. The intent is to improve  
8 on that 65 per cent regeneration success level during  
9 this plan period.

10 Q. Okay. Now, Mr. Multamaki, you have  
11 shown us the MAD that you actually calculated in the  
12 plan for black spruce and its implication for wood  
13 supply. Did you do other runs from which you selected  
14 that maximum allowable depletion for black spruce -- or  
15 for spruce?

16 A. Yes, in fact I did a number of other  
17 runs. I did approximately 8 to 10 runs for each of the  
18 forest units that were -- that had MAD calculations  
19 done, that's jack pine, spruce and the hardwood forest  
20 unit. And in fact these runs involved varying the  
21 criteria particularly for regeneration success; i.e.,  
22 that 65 per cent in spruce and rotation ages.

23 As Mr. Kennedy has previously mentioned,  
24 there isn't a great deal of latitude on these things  
25 because -- on these numbers because they are tied to

1 the local management situation. For example, I looked  
2 at varying rotation ages 5, 10 years one way or the  
3 other and looked at varying regeneration success  
4 levels, particularly in spruce by 5, 10, 15 per cent.

5 Incidentally, by varying the regeneration  
6 success level in spruce by 5 or 10 per cent; i.e.,  
7 moving from 65 per cent to 70, 75 per cent, there was  
8 almost a negligible impact on the number of hectares  
9 that would be available at rotation age. In fact, that  
10 4,518 only moved in the neighbourhood of a hundred  
11 hectares increase. So there was very little impact on  
12 the MAD calculation or the numbers that resulted from  
13 it in the long term as a result of that.

14 However, the rotation ages -- by varying  
15 the rotation ages it had a significant impact on what  
16 took place and how many hectares would be available for  
17 depletion.

18 Q. So what did you do when you had these  
19 various runs then?

20 A. From those runs I selected the one  
21 that was most appropriate to the management situation  
22 on the Red Lake Crown at that point in time; i.e., the  
23 90-year rotation for black spruce. That was based on  
24 local knowledge, product requirements and so on, and in  
25 fact I also looked at the long-term implications of

1 selecting the runs that you see in this plan; i.e.,  
2 again -- and I guess it gets back to that wood today/  
3 wood tomorrow scenario.

4 THE CHAIRMAN: Is that the general  
5 direction of impact of variation; that is, where you  
6 vary the rotation ages the impact will usually be much  
7 greater than varying the regeneration rates, or does  
8 that depend on the specie and the site and everything  
9 else?

10 MR. MULTAMAKI: It relies more on the  
11 age-class structure. I guess the process is such that  
12 as -- if you have an extremely overmature -- or the  
13 older the average age on your forest the more impact I  
14 guess varying rotation age will be. But, in general,  
15 yes, what happens is as you vary the rotation age you  
16 do have changes in the amount of area that becomes  
17 available.

18 MR. FREIDIN: Q. Mr. Kennedy, do you  
19 have any concluding remarks regarding this part of  
20 Document No. 2 before we move on to eligible areas and  
21 preliminary areas of concern?

22 MR. KENNEDY: A. Yes. At the outset of  
23 this particular part of the evidence we had indicated  
24 that we hope to demonstrate that the maximum allowable  
25 depletion calculations and the interpretation of those

1 kind of results of those calculations allows us to  
2 examine the purpose of the undertaking at the  
3 management unit level.

4 I think we are able to examine the --  
5 excuse me, we are able to make a prediction of the  
6 level of supply that will be available and, in the  
7 words of Dr. Osborn, that allows us to look at the wood  
8 today/wood tomorrow scenario. Because we have an  
9 age-class distribution as part of that, it's also  
10 possible to look at the forest structure over time.  
11 Some of my colleagues have suggested that allows us to  
12 take a look at the forests today and also the forests  
13 for tomorrow. We are able to look at the short, medium  
14 and long-term supply and, as such, look at a continuous  
15 level, and then we are able to answer the question of  
16 how much area is available for harvest as we set out in  
17 Figure 1 in page 123 of Exhibit 813A by using the MAD  
18 calculations.

19 And I should indicate that the result of  
20 the calculation, being the MAD level for the first five  
21 years, provides a framework for subsequent planning  
22 efforts which involves the identification in the  
23 geographic sense of which areas will be operated on in  
24 that five years and that's the subject matter of the  
25 next portion of the evidence.



1 MR. FREIDIN: If we could turn then to  
2 Part 8 of Document No. 2, it begins at page 159 of  
3 Exhibit 813A.

4 I would like to begin, Mr. Chairman, if I  
5 might, by filing as the next exhibit copies of some  
6 overheads -- actually three overheads and a copy of one  
7 interrogatory. The Interrogatory is from OFIA on this  
8 panel and it's No. 2.

9 Perhaps I will put them together as a  
10 bundle. Again, they will be in the order that they  
11 will be referred to in the evidence. Perhaps they  
12 could just be identified as documents re: Document 2,  
13 Part 8, Eligibility and Preliminary Areas of Concern.

14 (handed)

15 THE CHAIRMAN: Exhibit 833. What should  
16 we do; A, B, C and D?

17 MR. FREIDIN: Yes, you can do that as  
18 well, Mr. Chairman.

19 THE CHAIRMAN: Okay.

20 MR. FREIDIN: We were hopeful that doing  
21 it this way would be both more convenient to the Board  
22 and cause a slower progression towards Exhibit 1000  
23 which is concerning us.

24 THE CHAIRMAN: I am sure it is concerning  
25 Mr. Cassidy more.

1       ---EXHIBIT NO. 833: Hard copy of overhead documents  
2                               re: Document 2, Part 8,  
3                               Eligibility and Preliminary Areas  
                              of Concern (Pages A-D).

4                       MR. FREIDIN: Q. Mr. Kennedy, I  
5       understand you would like to make a few introductory  
6       remarks about this part of Document No. 2?

7                       MR. KENNEDY: A. Yes. I would simply  
8       like to indicate that there are two subject matters  
9       that we will be talking about in relation to Part 8 of  
10      Document 2, those being eligible areas and preliminary  
11      areas of concern. Eligible areas will be discussed by  
12      Mr. Multamaki and myself and Mr. Bisschop will be  
13      discussing the preliminary areas of concern.

14                      Eligible areas deal with the activities  
15      of harvest, renewal and tending and involves a separate  
16      subject of projected operating areas which we will be  
17      discussing in some detail.

18                      By way of introduction, I think it is  
19      also advisable to take a look backwards and just see  
20      what kind of information is being used in this  
21      particular part of the evidence and; that is, we will  
22      be discussing the timber resource in the determination  
23      of the eligible areas, we will be looking at the forest  
24      resource inventory information that is used in the  
25      summary form which has already been updated during the

1 assembly/analysis of background information, it has  
2 been updated to take account of the depletion such as  
3 fire and harvest and the accruals to the land base such  
4 as the areas that have reached free to grow.

5 That forest resource inventory then tells  
6 a forester how much forest is out there in total on the  
7 management unit. That forest resource inventory  
8 information is used in its summary form to input into  
9 the MAD calculation and with the MAD calculation we are  
10 able to determine the amount of that total forest that  
11 can be harvested and renewed for a given time period  
12 and, as such, provides a regulation of the forest.

13 The next step then in the planning is to  
14 determine where to operate and where to operate occurs  
15 in two time horizons: Where operations might occur is  
16 dealt with for a 20-year period, and that is the  
17 subject of eligibility; where operations will occur  
18 during the next five years is the subject matter of  
19 some more detailed evidence that we will be giving in  
20 relationship to Part 11 of the document, but the  
21 details of where operations might occur during the next  
22 20 years is the subject matter of eligibility.

23 And if I could refer you now to Exhibit  
24 833B. So again the subjects that we are looking at or  
25 the activities that we are looking at are harvest,

1 renewal and tending and we are looking at where  
2 operations might occur for the 20-year period. The way  
3 in which that is done is to develop a set of criteria  
4 which helps us to identify stands on the map and to  
5 portray in map form that information to the public and  
6 to the members of the planning team.

7 Using eligible areas is a relatively new  
8 concept, it is something that we have incorporated into  
9 this five-year scheduled renewal part of the planning  
10 process, as in the old process did not have this; the  
11 old process dealt with a 20-year management plan and a  
12 five-year or 10-year operating plan, so, as such, it  
13 took a look to the future in that medium term of 20  
14 years. In this new planning process, the eligible area  
15 serves the same function, it allows for a look to the  
16 medium term as to where operations might occur and  
17 helps us focus the area for the subsequent planning  
18 efforts. So, as such, it serves in some ways as an  
19 advance notice of the kind of operations and the  
20 locations where those operations might occur during the  
21 five years -- excuse me, during the 20 years.

22 But I have indicated on this exhibit that  
23 caution is needed, and when we are able to put up a map  
24 which illustrates this concept you will see that there  
25 is a considerable amount of area that is identified for



1 possible operations during that 20 years. The caution  
2 that is needed is that not all of those areas will be  
3 harvested during that term.

4 Q. Could you explain that?

5 A. Yes. I think it will become more  
6 clear as we go through the criteria and have a look at  
7 a map, but there is, on most management units, more  
8 area identified than is possible to harvest during the  
9 20-year period; so, in other words, it's greater than  
10 the amount that is for the sum of the five -- sorry, of  
11 the four five-year MAD levels.

12 The eligible areas, once they have been  
13 identified on the map, provides an indication to people  
14 where these operations might occur; to the planning  
15 team it also serves as a useful purpose of influencing  
16 where data collection activity should occur in order to  
17 have sufficient background information for each of the  
18 scheduled renewals of the plan, so it provides a focus  
19 for that as well.

20 Q. And by scheduled renewals of the  
21 plan, you are referring to what?

22 A. Scheduled renewals of the plan refers  
23 to the fact that, as part of this planning process, the  
24 timber management plans are renewed every five years,  
25 essentially they are on a five-year cycle and the

1 entire planning process, as we are describing, reoccurs  
2 for that management unit every five years.

3 Q. You had indicated earlier in your  
4 remarks that the eligible areas in this planning  
5 process which is being proposed is similar to the old  
6 in that they both look at the 20-year or medium time  
7 horizon, and I am not sure whether you indicated how  
8 the old process and the new process are different, but  
9 perhaps you could just indicate that right now?

10 A. Perhaps the best way of doing that is  
11 to indicate that the benefits of the new process is  
12 that being on a five-year scheduled renewal it allows  
13 the opportunity to update the FRI information and to  
14 make better predictions based on current information  
15 each five years.

16 The old style planning, which required  
17 the preparation of a 20-year management plan, required  
18 predictions to be made for the total 20 years as to  
19 where operations would occur and was based on the  
20 assumptions that were laid out at the outset of that  
21 planning period and the suggested changes that might  
22 occur on that land base over time.

23 So there is a certain amount of -- or,  
24 there was a level of uncertainty with regards to those  
25 changes.

1                   THE CHAIRMAN: Mr. Kennedy, when you  
2                   indicate that when you looked at the medium term, 20  
3                   years, that you have to be cautious of the fact that it  
4                   will generally indicate more eligible areas than will  
5                   actually be harvested by adding together the total of  
6                   the four MAD calculations for the five-year periods,  
7                   when you contrast that with what you have just said,  
8                   that you renew the plan every five years and update  
9                   your FRI information, won't the land base be different  
10                  that you will be dealing with because your updated FRI  
11                  information will bring in additional areas to the land  
12                  base as well as updating the other information.

13                  So that you can't really compare; can  
14                  you, equally the 20-year projection because it is  
15                  always changing every five years?

16                  MR. KENNEDY: Yes, Mr. Chairman, you are  
17                  quite right. That -- your synopsis is correct in that  
18                  the renewal every five years does provide the  
19                  opportunity to update the land base for changes such as  
20                  the harvest as well as natural disturbance, it also  
21                  allows for the updating of the areas that have reached  
22                  free to grow and have now been included back into the  
23                  land base, and allows for a better prediction with that  
24                  updated information each five years along -- throughout  
25                  the period; whereas in the old style planning process

1       there was one update which occurred at the beginning of  
2       each 20 years and the balance of the planning  
3       activities were done in relation to that updated  
4       information.

5                   THE CHAIRMAN: Well, doesn't that  
6       effectively mean though that you really look for your  
7       medium term projection each five years independently,  
8       because that is the only data at that data point which  
9       will be constant. Is that fair?

10                  MR. KENNEDY: If I am understanding you,  
11       yes, in that each five --

12                  THE CHAIRMAN: In other words, it doesn't  
13       take make much sense to take a look at the beginning of  
14       the first 20-year period of looking 20 years down the  
15       road and saying: Here's what will likely be eligible  
16       for harvest, when five years down the road, when you  
17       look at that further 20 years, it's got a changed land  
18       base.

19                  MR. KENNEDY: Mm-hmm.

20                  THE CHAIRMAN: So really what you are  
21       comparing won't be the same.

22                  MR. KENNEDY: That's right. And at each  
23       scheduled renewal we are adding on an additional five  
24       years; so, in effect, there is an overlap throughout  
25       the whole period and with your new information you are



1       able to make better predictions over time and this is  
2       an improvement over the previous style planning.

3                   THE CHAIRMAN: Without labouring the  
4       point, I guess what I am trying to say is, you make a  
5       better projection at the end of each five years because  
6       you have better information upon which to make that  
7       projection, but you can't really compare that  
8       projection with what you had before because the land  
9       base will in fact have been different?

10                  MR. KENNEDY: Yes, you are correct.

11                  THE CHAIRMAN: Okay.

12                  MR. MARTEL: Can I ask a question then.  
13       When you have got your first 20 years of -- or your 20  
14       years renewable after five years when you first started  
15       the process, at the end of the first five years you  
16       still had to take -- even though you started out with  
17       20, you still had to add five more because - what was  
18       the term they used, an ongoing process, evergreen - so  
19       even at the beginning, at the end of the first five  
20       years of harvesting and so on, you then had to add  
21       because it was then 20 years once more?

22                  MR. KENNEDY: Yes, Mr. Martel, I think  
23       you are recalling the particulars of the forest  
24       management agreements and those forest management  
25       agreements were termed a form of evergreen licence, I

1 believe is the way Mr. Armson described them in Panel  
2 2.

3 In those agreements there is a roll-over  
4 clause, if I could use that phrase, to describe that if  
5 the agreement holder has satisfactorily completed his  
6 obligations that the agreements are extended a further  
7 five years. The normal agreement period is 20 years  
8 and as the first five have been completed there is a  
9 review and assessment of the holder's performance under  
10 the agreement and, when satisfactory, an additional  
11 five years is added on. So that in the ideal situation  
12 at all times that the agreement is being held for a  
13 20-year period, which is also bringing to light the  
14 fact that those agreements required a forest management  
15 plan to be prepared under a separate manual which was  
16 in place at that time which outlined the requirements  
17 of preparing those plans for FMA forests.

18 Part of this planning process has been to  
19 combine the two old manuals that were in place into  
20 this current manual which is now filed as Exhibit 7.  
21 So this serves the one planning manual for all three  
22 types of management units in the province and one of  
23 the important aspects that we have incorporated in with  
24 this manual is from our experience with the FMA forests  
25 and; that is, this five-year renewal idea, and the way

1       that that has been worked into the process is by having  
2       scheduled renewals for every forest management unit to  
3       occur every five years.

4               We will also be discussing in evidence --  
5       a little later in our evidence of this panel the  
6       situations that might arise where an unscheduled  
7       renewal may be necessary due to catastrophic events,  
8       but we are looking at a five-year planning time horizon  
9       with projections in the medium and long term look at  
10      wood supply.

11              MR. FREIDIN:  Q.  And, Mr. Kennedy, I  
12      have two questions arising out of the questions from  
13      the Board.  First the question from Mr. Martel.

14              Can you advise:  Is there any connection  
15      between the 20-year period, which is sort of the term  
16      of the FMA agreements, this evergreen agreement, and  
17      the fact that eligible areas are identified for periods  
18      or indicate areas where operations might occur for a  
19      20-year period; is there any connection between those  
20      two?

21              MR. KENNEDY:  A.  Yes.  Yes, there is a  
22      connection in the sense that in the old style planning  
23      there was a projection of where operations might occur  
24      for the full 20-year period that was set out in the  
25      beginning.  But the benefit of using the eligible areas

1 is that we are able to set out now at the beginning of  
2 the five-year term projections of where operations  
3 might occur for a full 20. At the time of scheduled  
4 renewal we add in additional areas then to cover off  
5 those forest stands that have had additional growth and  
6 whose conditions now make them eligible.

7 So in fact we have built in a roll-over  
8 clause into our eligible areas so that we constantly  
9 have in front of us an area where we might be operating  
10 which allows us to accomplish some of the purposes as  
11 has been described in Exhibit 833B which would be to  
12 focus the data collection, to give advance notice of  
13 where operations might occur, and to facilitate input  
14 from other users - a point that I hadn't mentioned -  
15 which allows people to come forward with the  
16 information that is pertinent to those areas.

17 Q. So an FMA holder would have to  
18 prepare a timber management plan every five years  
19 showing eligible areas for a 20-year period into the  
20 future?

21 A. Yes. As we are indicating at the  
22 outset of the evidence of Panel 15 under introductory  
23 remarks, all three types of management units are now  
24 using one manual and that manual is Exhibit 7 and we do  
25 include in there a requirement to compile eligibility



1 maps which give an indication of where operations might  
2 occur during the 20-year period.

3 Further to that we also require as part  
4 of the manual in every timber management plan an  
5 indication of where operations will occur for the next  
6 five years, and I indicated that we will be discussing  
7 that in some detail in our Part 11 of Document 2.

8 Q. It's Part 10 and 11, I guess.

9 A. Excuse me, Part 10 and 11.

10 Q. Now, you said to the Chairman that  
11 you thought that the new process where you have this  
12 scheduled renewal every five years as compared to the  
13 situation under the old manual was an improvement over  
14 the last planning process or the old planning process.  
15 Why do you say or believe it is an improvement?

16 A. I think perhaps the best way to  
17 summarize is it is that you are using updated  
18 information every five years to guide your predictions  
19 and, therefore, it allows you to be more precise in  
20 your estimate of what activities will occur and where  
21 they will occur.

22 Q. Now, you indicated that specific  
23 eligibility criteria are developed for harvest, renewal  
24 and tending, that is the first bullet point on Exhibit  
25 833B. Do the criteria have anything in common?

1                   A. Yes, they do. What is common to them  
2 is the condition of the forest at the time that the  
3 planning is undertaken, the needs of industrial users  
4 and the management objectives and actions that are  
5 required to be met on that particular area would all be  
6 common subjects that the eligibility criteria developed  
7 for both harvest renewal and maintenance would  
8 consider -- excuse me, that a forester would consider  
9 when developing those particular set of criteria.

10                  Q. How specific do those criteria have  
11 to be, Mr. Kennedy?

12                  A. The criteria have to be specific  
13 enough to be able to provide a guidance for the  
14 identification of forest stands on the FRI maps, so  
15 they do have to be able to allow for the geographic  
16 identification of eligible areas.

17                  Perhaps to better illustrate that I would  
18 suggest that people turn to page 130 of the Class EA,  
19 Document Exhibit 4, and we will take a look at the kind  
20 of subject matters that are addressed when you are  
21 developing eligible criteria for harvest.

22                  Q. The comments you have made to this  
23 point then are general comments applying to eligibility  
24 criteria for harvest, renewal and tending; is that  
25 correct?

1 A. That's correct.

2 Q. And now you are going to refer to  
3 eligibility criteria but those specifically related to  
4 the activity of harvest?

5 A. That's right.

6 Q. Thank you.

7 A. So at page 130 of Exhibit 4 starting  
8 at line 24 is a listing of the kind of subject matters  
9 that the forester is considering at the time that they  
10 are developing a set of criteria.

11 I should indicate that there is a  
12 documentation requirement in the timber management plan  
13 that the criteria be included in the plan for others to  
14 retrace the steps and the thought process that the  
15 forester has used in developing those criteria, but  
16 these are the subject matters:

17 The maturity and age of the forest that  
18 is out there, the different trees and stands; the  
19 possible deterioration of the product quality in areas  
20 where natural disturbance has occurred, such as a  
21 forest fire; the need to identify specific areas as  
22 eligible for harvest in order to meet particular  
23 management objectives.

24 Q. I understand Mr. Multamaki will be  
25 giving -- or speaking to his actual criteria in the Red

1 Lake Crown?

2 A. Yes. When we are talking, if you  
3 will, conceptually here on these items I believe it is  
4 a bit difficult to grasp, but when we move to the  
5 example that Mr. Multamaki will be giving he will be  
6 able to demonstrate the criteria that he used and I  
7 think you will see that they fall generally into these  
8 kind of subject matters and that the level of  
9 refinement of his criteria allows him to go to his  
10 forest stand maps, his FRI maps and identify which  
11 stands are eligible for that 20-year period.

12 Q. When we are talking about renewal and  
13 tending, are there any factors which are commonly  
14 considered in determining criteria for eligibility  
15 purposes?

16 A. Yes. I had mentioned that those  
17 conditions of the forest and the management objectives  
18 are two of the more important things that remain true  
19 for consideration when you are developing renewal and  
20 tending criteria, and that more specific information  
21 relative to those two subjects is seen on page 131 of  
22 Exhibit 4 starting at line 11 where there is an  
23 indication the kind of subject matters that the  
24 forester considers when developing those specific  
25 eligibility criteria.



1                   The first one indicated is that those  
2                   areas that are expected to be harvested during the  
3                   20-year period would obviously be those areas where  
4                   renewal operations would be expected to occur; areas  
5                   where natural disturbances have just occurred would  
6                   also be included as areas that would be eligible for  
7                   renewal; and those areas that have not get been  
8                   satisfactorily renewed or do require tending.

9                   That kind of information would be known  
10                  as a result of the assembly and analysis of background  
11                  information stages where there would be the results of  
12                  stocking surveys, free to grow surveys, NSR surveys,  
13                  and information of that variety.

14                  Also you will see a note in there that  
15                  there would be a criteria developed, if need be, in  
16                  order to address a particular management objective that  
17                  would have been discussed in the plan at this point.  
18                  So, again in this case, the level of precision or  
19                  detail that is required in relation to these criteria  
20                  is to allow for the forester to identify on the forest  
21                  stand maps those areas that will be -- where  
22                  operations -- renewal and tending operations might  
23                  occur during the next 20-year period. There is also a  
24                  requirement to document those criteria in the plan.

25                  One of the reasons for this requirement

1 allows for other individuals to arrive -- sorry, to  
2 view the timber management plan at a later date,  
3 retrace the thinking and the steps that the forester  
4 has done in order to recreate those particular pieces  
5 of information. It also allows subsequent plan  
6 authors, if there is a change of author from term to  
7 term, to be able to trace the management intentions  
8 that that forester had for that land base.

9 Q. And is that documentation requirement  
10 in relation to areas eligible one which requires some  
11 discussion in a text form?

12 A. Most often it does. There is a set  
13 of eligibility criteria developed for each one of the  
14 activities: harvest, renewal, and maintenance; there  
15 would be an associated text that accompanies those  
16 describing the kind of intentions, and then there is a  
17 map that is prepared based on those criteria. All of  
18 those kind of documentation requirements are expected  
19 to be included in the timber management plan.

20 Q. Okay, thank you. Mr. Churcher, are  
21 areas identified as eligible for protection operations  
22 in the next 20 years in a fashion similar to harvest,  
23 renewal and tending?

24 MR. CHURCHER: A. Not on a 20-year  
25 basis, no.

1 Q. Why not?

2 A. Due to the transient nature of  
3 insects and the fluctuation and variability of outbreak  
4 cycles as was discussed in Panel 13, it's impossible to  
5 predict accurately what insect infestations would  
6 require -- where they would be and what would require  
7 protection on a 20-year basis.

8 Q. Thank you. Now, Mr. Multamaki, I  
9 understand that in your plan you dealt with eligibility  
10 for harvest, renewal and tending?

11 MR. MULTAMAKI: A. That's correct. I  
12 guess the easiest way to deal with this is to perhaps  
13 pull up the final product of this exercise, and it's in  
14 the form of mapped information or an eligibility map.  
15 This map is contained in Appendix D -- Book 2, Appendix  
16 D of the Red Lake Crown plan. Perhaps we can set it up  
17 out in the centre here and we can all close in.

18 MR. FREIDIN: And, Mr. Chairman, what I  
19 am proposing that we do here is to set up the map in  
20 front of the witness table - Mr. Multamaki is able to  
21 walk around with his microphone - and I would -- I  
22 think it would probably be advisable for the Board and  
23 anyone else that wants to follow along, that they come  
24 up with their notebook, if they want to keep notes, and  
25 just follow the evidence given by Mr. Multamaki about

1 the map.

2 THE CHAIRMAN: Very well. Okay.

3 MR. MULTAMAKI: This map is Part A of the  
4 Red Lake Crown Management Unit, it is at a scale of  
5 1:50,000. You will notice in the bottom right-hand  
6 corner the legend shows the eligibility criteria by  
7 forest unit. For example, yellow is denoted as black  
8 spruce, jack pine would be in green, balsam fir is in  
9 dark yellow and the hardwood forest unit is in brown.

10 MR. FREIDIN: Q. You indicated that the  
11 legend indicates the eligibility criteria through that?

12 MR. MULTAMAKI: A. Yes, it does. It is  
13 based mostly on an age-class breakdown; i.e., when you  
14 look at, for instance, black spruce you see that it's  
15 shown as being 81-90, 91-100 and 101 plus. What we're  
16 showing here is that the stuff has -- the stands have  
17 been I guess prioritized or whatever based on the most  
18 eligible being the 101 in spruce coloured solid; the  
19 second most eligible being 91-100, or that's the spruce  
20 that's at rotation age, 90-year-old rotation age, to  
21 100, it's mature; and the 81-90 is the timber that will  
22 be becoming eligible during the 20-year period of that  
23 plan.

24 Q. Are you indicating that oldest first  
25 is one of the eligibility criteria that you identified?



1                   A. Yes, oldest first was one of them and  
2 we will be discussing the others in a minute. When you  
3 look at this eligibility map you will notice that there  
4 are basically three large areas of overmature timber.  
5 There's the area up here to the north -- the north and  
6 west of Little Vermilion Lake, we'll be discussing this  
7 at one of our future panels -- or one of our future  
8 sections.

9                   The section just to the north of Red Lake  
10 and between Red Lake and Little Vermilion Lake, which  
11 again contains a large block of mature and overmature  
12 timber, and the area down here to the west of Red Lake.  
13 Incidentally, Red Lake is this -- is in this location  
14 right here in the immediate southeast corner of the  
15 map. So we really have three areas that we were  
16 looking at or projecting would be operated over the  
17 20-year period of this plan.

18                  Now, the white area you see here in the  
19 northwest corner of the Red Lake Crown Management Unit  
20 is Fire No. 7, it's outlined in red. In fact, it  
21 was -- occurred in May of 1986 and in fact doesn't show  
22 as being eligible for harvesting operations. Down at  
23 the bottom of the legend, if you look at --

24                  THE CHAIRMAN: Excuse me, Mr. Multamaki,  
25 where is the boundary of Fire 7? Where is the other

1 boundary?

2 MR. MULTAMAKI: This red line right here  
3 denotes the boundary of Fire No. 7. (indicating)

4 MR. FREIDIN: The Chairman may be  
5 wondering where the northern boundary is.

6 THE CHAIRMAN: It's off the map?

7 MR. MULTAMAKI: It's off. It's off in  
8 the Berens Crown River Management Unit and in Woodland  
9 Caribou Provincial Park. In fact, what you are seeing  
10 here is just a portion of the fire, approximately 30 or  
11 40 per cent of that fire.

12 MR. FREIDIN: Q. Before we -- can we  
13 just go back to the areas which you indicated were  
14 identified as eligible. There are different colours  
15 and different sorts of hash marks and that sort of  
16 thing. Could you just explain the significance of the  
17 different colours, the different rotations on the  
18 colours?

19 MR. MULTAMAKI: A. Yes. The common  
20 theme on this map for eligibility criteria is that the  
21 solid areas are the oldest, they are the ones that we  
22 are looking at harvesting operations in the early part  
23 of this plan; the vertical lines are the second oldest  
24 in eligibility; and the third oldest are the horizontal  
25 lines.

1                   For example, you will notice that this  
2                   block up here in fact is the younger part of that  
3                   eligibility criteria. It's still eligible but it's at  
4                   the bottom end of the age-class scale. (indicating)

5                   Q. And the legend indicates that the  
6                   age-classes for the different species vary in terms of  
7                   whether they are going to be in solid, vertical or the  
8                   horizontal bars?

9                   A. That's correct. They vary on -- by  
10                  working group or forest unit. For example black  
11                  spruce, because it has a rotation age of 90 years,  
12                  obviously has a bottom end that starts at 81 for  
13                  eligibility criteria; whereas jack pine with a 75-year  
14                  rotation age, starts at 61. What we're saying is that  
15                  that 61-year-old -- those 61-year-old stands will in  
16                  fact become rotation age within the 20-year period of  
17                  this plan.

18                  And for balsam fir, what we're talking  
19                  about is looking at eligibility criteria that's not  
20                  based so much on age as depleting balsam fir or  
21                  liquidating it where we encounter it. You'll notice  
22                  that it's a relatively small working group.  
23                  Incidentally, where balsam fir occurs is along the  
24                  shoreline of Red Lake, Little Vermilion Lake and there  
25                  is not a great deal of it that isn't associated with

1 shorelines and the past harvesting history on the Red  
2 Lake Crown.

3 Q. What's the reference? Why do you  
4 refer to the past harvesting practices and where they  
5 are found? What does that have to do with balsam fir?

6 A. Well, balsam fir has occurred in  
7 these areas as a result of past harvesting operations  
8 along the lakeshores for saw log quality material for  
9 the local saw milling industry. We're talking in  
10 excess of 20 years or 30 years ago. Also of interest,  
11 or an important point on this --

12 Q. In those situations were the stands  
13 clearcut or were they dealt with in a different  
14 fashion?

15 A. No, they were selectively harvested  
16 and they were in fact selectively harvested by product,  
17 in fact what had took place was a combination of horse  
18 logging for large diameter saw log quality material, it  
19 was placed on the ice in the winter time, the wood was  
20 then boomed in the summer to the local saw mills and  
21 processed for things such as railway ties, lumber and  
22 so on.

23 Q. Is that the practice which occurred  
24 in the past described sometimes as high grading?

25 A. It's been described that way.



1 Q. And what was the connection between  
2 that practice and having balsam fir in that area? I  
3 don't want to not leave that, so that point is  
4 finished.

5 A. That practice of selectively  
6 harvesting these areas in fact promoted the ingrowth of  
7 balsam fir. Because of the silvics of the species,  
8 balsam fir tends to colonize or grow in on areas that  
9 have been selectively harvested.

10 Q. Now, if someone came in off street  
11 and was interested in where harvest, renewal and  
12 maintenance might occur within the next 20 years, at  
13 least on the areas within the outline of this map,  
14 would this map give them that information?

15 A. Certainly on a broad basis it does.  
16 It shows that in fact this area up here we would look  
17 at accessing and harvesting within the 20-year period  
18 of the plan. It's slightly younger in nature given  
19 that you see the horizontal lines. This area here  
20 (indicating) --

21 Q. What area now?

22 A. Just to the north of Red Lake.

23 Q. Okay.

24 A. In fact, that black line is the Pine  
25 Ridge Road. This area right now is in fact planned for

1 operations within this plan period, as is this area out  
2 on Suffel Lake Road or to the west of Red Lake, and if  
3 a person were to walk in off the street and see the  
4 eligibility map the first thing that that individual  
5 would notice is that there's really the three areas:  
6 to the west of Red Lake, immediately to the north of  
7 Red Lake and south of Little Vermilion Lake, and the  
8 northwest corner of Little Vermilion Lake.

9 And the key here is that by being  
10 coloured the individual would recognize that -- and  
11 based on legend, that in fact during this 20-year  
12 period of the plan those areas are in fact -- do meet  
13 the eligibility criteria and operations, it has the  
14 potential for operations to be planned in them.

15 By the same token, you look at the Fire  
16 No. 7 area, it's completely white. The potential for  
17 harvest operations are -- don't really exist because  
18 that area has been destroyed by fire. As well though,  
19 if you look at the 20-year eligibility -- or areas  
20 eligible for renewal and maintenance - in fact that  
21 maintenance is tending - you see a green line. What  
22 the green line here denotes is that Fire No. 7 is  
23 available for renewal operations. We're saying that  
24 within Fire No. 7 it's available for renewal operations  
25 during the 20-year period of this plan.

1 Q. And you said the green line?

2 A. The green line.

3 Q. All right.

4 A. In fact there's a green and a red  
5 line there.

6 Q. I have to get a little closer.

7 Perhaps you can indicate, in relation to renewal and  
8 tending, you say that's denoted by green areas or areas  
9 outlined in green?

10 A. Outlined in green.

11 Q. Is that, first of all, indicated in  
12 any way on the legend?

13 A. Yes, the last -- the bottom line here  
14 shows the 20-year areas eligible for renewal and  
15 maintenance. It's a simple green line. You can see  
16 these green areas right here. (indicating) In fact  
17 what those are is harvest cut areas that were cut  
18 during the 1980-86 period.

19 Q. Now, the green areas that you  
20 referred to are the ones at the bottom of this  
21 particular map?

22 A. That's correct.

23 Q. And are there other green areas where  
24 you have identified areas which are available or might  
25 be subject to operations of renewal and tending?

1                   A. Yes. Once again, within the Fire 7  
2 area you can see that in fact there's a green line  
3 associated with that red line. We are projecting that  
4 there will be silvicultural operations or renewal  
5 operations within the Fire 7 area. There's also a  
6 small block up here by Little Vermilion Lake. In fact,  
7 that's an older harvest cut. And these are -- there's  
8 also areas associated with backlog areas as a result of  
9 much older harvest cuts and areas that simply have not  
10 regenerated for a number of reasons. (indicating)

11                  Q. I understand much of this information  
12 is actually contained in the text of the plan and we  
13 will advise the Board where that description is found  
14 when we go back to our seats?

15                  A. That's correct.

16                  Q. Now, what about the area that is all  
17 coloured; that is, the area which might be operated on  
18 within the 20 years, is that area eligible for renewal  
19 and tending if operations occur on them?

20                  A. Yes. If you look at the legend, the  
21 first line -- or, sorry, the third line here makes that  
22 statement that the 20-year areas eligible for harvest,  
23 renewal and maintenance include those areas that are  
24 shown -- or are coloured. In fact, what the intent is  
25 is that if we are going to deplete those areas, they're



1 also eligible for renewal operations.

2 Q. And if someone wanted to know, other  
3 than the forester, or the forester wanted to know where  
4 a specific species or working group might be harvested,  
5 would this map also show them -- provide that  
6 information?

7 A. Yes, it would. For example, if you  
8 were interested in where the overmature black spruce  
9 is, it would be the solid yellow. If you're interested  
10 in the overmature jack pine, you are looking at the  
11 solid green and so on. So you can tell by a  
12 combination of species and age or species working group  
13 or forest unit and age.

14 Q. So on this map you have in fact  
15 identified a specific colour to a specific species?

16 A. That's correct. That's what we call  
17 working group colors.

18 Q. Is that a common approach in  
19 preparing 20-year maps re 20-years eligibility for  
20 harvest, renewal and tending?

21 A. Yes. It has been my experience that  
22 it's a very common approach. It's -- that working  
23 group colours and combinations of solid and hash lines  
24 or whatever are used throughout the plans that I've  
25 seen.

1 THE CHAIRMAN: Is there uniformity across  
2 the province in terms of the colours used and the hash  
3 mark designations, vis-a-vis species?

4 MR. MULTAMAKI: There's generally  
5 uniformity in the way of species or species working  
6 groups, however, recognizing that the criteria change  
7 because there may be a various number of reasons for  
8 those criteria, the solid colouring scheme or hash  
9 lines or whatever may change.

10 THE CHAIRMAN: In other words, jack pine  
11 would be referred to in green across the province?

12 MR. MULTAMAKI: Generally it is, yes.

13 MR. FREIDIN: Q. Is there anything else  
14 that you want to speak to in relation to this map  
15 before we go back and deal with the text?

16 MR. MULTAMAKI: A. I guess just as a  
17 point of interest, you will notice this white area down  
18 here (indicating), it may be the assumption that that  
19 in fact is a fire, it's not, it's part of Woodland  
20 Caribou Provincial Park, as well as the line that comes  
21 up here. (indicating)

22 Q. All right. Hold on. The area that  
23 you identified as Woodland Caribou Provincial park is  
24 the area to the south--

25 A. East --southwest, sorry.

1 Q. --southwest of Douglas Lake?

2 A. That's correct.

3 Q. And the other area you indicated is  
4 the area in the fire area?

5 A. Yes, to the northwest. And in fact  
6 that's this straight line here -- up here, over here  
7 between Knox and Pech Lake. (indicating)

8 MR. FREIDIN: Perhaps if you look at that  
9 latter area, it has got Woodland Caribou Provincial  
10 Park written on the map.

11 MR. MULTAMAKI: That's pretty well...

12 THE CHAIRMAN: Do you want to mark that  
13 as Exhibit 834, please.

14 ---EXHIBIT NO. 834: Eligibility Map contained in  
15 Appendix D, Book 2, Red Lake Crown  
Plan.

16 MR. FREIDIN: Q. And I know we will be  
17 getting to the information centres in Part 13 of this  
18 document, but would a map like that be available at the  
19 information centre for review by the public?

20 MR. MULTAMAKI: A. Yes, it would.  
21 Generally that would be one of the first maps that you  
22 would encounter at an information centre.

23 Q. All right. Now, dealing with  
24 harvest, you showed us on the map certain areas which  
25 were coloured and which were eligible for the activity

1 of harvest as well as renewal and tending. How did you  
2 decide what areas actually got coloured on the map, or  
3 putting it another way: How did you determine what was  
4 eligible for harvest?

5 A. On the Red Lake Crown we looked at --  
6 or I looked at the oldest first as shown on that map as  
7 being one of the criteria for harvest. This in fact is  
8 discussed on page 91 of Exhibit 814. If you could turn  
9 there.

10 Q. I believe it actually starts at the  
11 bottom of page 90?

12 A. That's correct. It starts at the  
13 bottom of page 90. In fact what it discusses is the  
14 oldest first principle.

15 Q. And what was the -- just the general  
16 thinking behind indicating oldest first as one of the  
17 criteria?

18 A. The general thinking behind that was  
19 that by depleting the oldest first in fact we would be  
20 removing the material that is obviously the oldest on  
21 the unit, the most susceptible to disease, insect and  
22 natural mortality, as well the oldest forest tends to  
23 provide the products industry requires, particularly  
24 with respect to saw logs and in some cases pulpwood.

25 Now, when you look at page 90-91, it's



1       also linked to three strategies -- sorry, three  
2       objectives.

3                       Q.   What is linked to three strategies?

4                       A.   The oldest first eligibility -- or  
5       criteria and in fact this is actually linked back to  
6       the production objective we discussed in -- earlier in  
7       the plan, it is also linked to the sustained forest  
8       production objective and the product objective.

9                       These are given on pages 31 and 32.  They  
10      are actually -- the section of the plan is 4.8.1, 4.8.2  
11      and 4.8.5.  So in fact this oldest first criteria is  
12      linked back to the number of objectives and strategies  
13      within the plan.

14                      MR. FREIDIN:  Mr. Chairman, do you just  
15      want to mark that?  I think we have referred to those,  
16      I don't intend to go back and repeat that, but if you  
17      just want to cross-reference that in the fourth line,  
18      Section 4.8.1 which is the production objectives at  
19      page 31, the products objective which is found in  
20      Section 4.8.5 is found at page 32.

21                      And if you go down to the very second  
22      last line on this section just before the heading Re:  
23      Preliminary Areas Of Concern, you will see reference to  
24      the sustained forest production in the middle of that  
25      second last line, refers to Section 4.8.2 as being

1 where you will find that particular objective. That's  
2 at page 31.

3 Q. And while we are on that subject, Mr.  
4 Multamaki, I note, if we go back to the top of page 91  
5 it indicates that the -- through the oldest first the  
6 production and the product objectives will be partially  
7 achieved. Could you explain why you have made the  
8 reference to the achievement being partially achieved  
9 through this criteria?

10 MR. MULTAMAKI: A. Yes. The term  
11 partially refers to the fact that the oldest first  
12 criteria will in fact not completely achieve any one of  
13 those objectives. In fact, there are other strategies  
14 that are in place to help achieve each of those  
15 objectives of which oldest first is one.

16 Q. Now, were there any criteria  
17 identified other than oldest first?

18 A. Yes, there were. If you look at --  
19 on page 91 again in the centre of the page there is A,  
20 B, C and D. These are four components in addition to  
21 oldest first that were developed. For example, in A, A  
22 recognizes -- point A recognizes that the balsam fir  
23 working group was available for liquidation and this  
24 was to address the spruce budworm situation that was  
25 occurring on the Red Lake Crown.

1 Q. And when you say it was available for  
2 liquidation, what do you mean by liquidation?

3 A. What we're talking about is  
4 liquidation by species not working group. When we  
5 harvest an area of balsam fir we are looking at taking  
6 all of the balsam fir material; i.e., clearcutting,  
7 removing the balsam fir for the pulpwood or, in this  
8 case, balsam fir is only suitable for pulpwood, and  
9 removing the seed source so that balsam fir will not be  
10 able to seep back in.

11 Obviously from looking at the eligibility  
12 map, liquidation by working group would be -- is not a  
13 reality given the distribution of balsam fir and the  
14 association with shorelines and so on. So we're really  
15 talking about liquidation by species on those areas  
16 that are selected for harvest.

17 If you look at component B, this  
18 component recognizes stands where balsam fir is  
19 suitable for pulpwood operations. What we have said is  
20 that balsam fir has a rotation age of 60 years old,  
21 where we encounter that we can in fact commercially  
22 harvest the balsam fir and sell it for pulpwood.

23 Component C shows -- recognizes the  
24 hardwood situation and the fact that there are areas  
25 where there is 30 per cent conifer content. This is

1 generally the situation where saw log quality --  
2 conifer saw log quality material is in association with  
3 the hardwood stands and in fact we're looking at  
4 depleting those areas for the conifer content.

5 And finally component D, this indicates  
6 the need to convert balsam fir areas from the balsam  
7 fir working group into other conifer working groups to  
8 address the spruce budworm situation again. This is  
9 through the form -- would take the form of  
10 clearcutting, mechanical site preparation and  
11 artificial regeneration.

12 MR. FREIDIN: I understand, Mr. Chairman,  
13 there is a typographical error in the fourth line --  
14 pardon me, the third line of No. D. It should say form  
15 of clearcutting and mechanical site prep.

16 Q. Is that correct, Mr. Multamaki?

17 MR. MULTAMAKI: A. That's correct.

18 Q. What about renewal criteria, Mr.  
19 Multamaki, were they chosen and are they discussed in  
20 the plan?

21 A. Yes. As we've briefly discussed and  
22 shown on the map, renewal and maintenance -- or renewal  
23 and tending - really the maintenance component was  
24 tending - criteria were developed for the Red Lake  
25 Crown. These are shown on page 113 of Exhibit 814.



1                   At the bottom of the page you will see  
2           under Section 8.1 Areas Eligible for Allocation for  
3           Renewal and Maintenance. There is sub point A,  
4           criteria for 20-year renewal and maintenance  
5           eligibility, and within that there's four components.

6                   We have pretty well described these  
7           components on the map. The first one, for example,  
8           shows that areas planned -- eligible for harvest in  
9           fact are eligible for renewal and tending or renewal  
10          and maintenance operations as well.

11                   Area -- or component No. 2 is in fact the  
12          Fire 7 area. We're basically saying that that area  
13          lost to Fire 7 is available or eligible for renewal and  
14          maintenance operations during the 20-year period of  
15          this plan. Just as a point, under component No. 2, you  
16          will notice that there is a statement made that -- the  
17          last sentence:

18                   "...Actual operations will not take place  
19                   in this area until at least 1991 after  
20                   the area has been assessed for natural  
21                   regeneration."

22                   In fact what the -- during the five-year  
23          period of this plan most of the renewal operations that  
24          take place will in fact be assessment for natural  
25          regeneration.

1 Q. On that area?

2 A. On that area, in the Fire 7 area.

3 Component 3 on page 113 shows that there is eligibility  
4 criteria for backlog areas that haven't satisfactorily  
5 regenerated.

6 And finally component No. 4 is in fact  
7 the tending criteria and it basically makes the  
8 statement that established plantations that have not  
9 achieved free to grow status are eligible for tending  
10 operations.

11 Q. If we could move on to the subject of  
12 projected operating areas, if I can find my note.

13 Mr. Kennedy, I understand that this  
14 subject matter is discussed in the Environmental  
15 Assessment Document, Exhibit 4, at pages 131 to 132?

16 MR. KENNEDY: A. Yes, it is.

17 Q. And I understand that the concept of  
18 projected operating areas is relatively new; is that  
19 correct?

20 A. Yes, you're correct.

21 Q. And could you describe what that  
22 concept is and why it was developed?

23 A. Okay. The suggestion came about as a  
24 result of concerns that were expressed by some of the  
25 managers, forest managers that were applying the

1 process early in its development. They were looking at  
2 the use of the eligibility and specifically the mapping  
3 requirements for eligibility and a number of those  
4 managers were dealing with forests that had a  
5 preponderance of mature and overmature wood.

6 As a result of that large amount of  
7 mature and overmature wood, they realized that if they  
8 went about the development of criteria and followed  
9 through with the mapping requirements that they would  
10 end up with maps that were virtually all coloured, and  
11 that in situations like that the maps would not serve  
12 the purpose that eligibility was intended to, which was  
13 to focus the planning and provide a direction as to  
14 where data collection activities could occur and to  
15 provide input for other people.

16 As a result, a decision was made to  
17 provide an opportunity to identify a portion of the  
18 land base and we have labeled that a projected  
19 operating area, and within that projected operating  
20 area the directions are to go about determining  
21 eligibility criteria and mapping for within that area.

22 So it was in response to a concern and  
23 situations that were raised by staff in the field  
24 working with eligibility. It could be viewed as a  
25 refinement to eligibility and there are -- the

1 documentation requirements for eligibility criteria and  
2 mapping are the same, and there is additional  
3 documentation requirements which deal with a discussion  
4 in the projected operating area and the documentation  
5 of the rationale as to why a particular area was  
6 selected.

7 Q. Would that rationale also address why  
8 projected operating areas was the approach taken as  
9 opposed to going eligible?

10 A. Yes, it would -- part of that  
11 rationale would need to describe the forest conditions  
12 that were being confronted by the managers. I would  
13 expect some discussion of Table 4.19 where the age  
14 classes are discussed and the implications of  
15 proceeding with the eligible without using the  
16 projected operating areas as opposed to a suggestion to  
17 use a particular portion of the land base identified as  
18 a projected operating area.

19 Q. Thank you. Now, Mr. Bisschop --

20 A. I was just going to indicate, Mr.  
21 Freidin, that this was not the case in the Red Lake  
22 Timber Management Plan and we have not included an  
23 example of this particular concept, is that you could  
24 simply think of it as a portion of the eligibility map  
25 that Mr. Multamaki has described would be identified as



1 a projected operating area and the colouring scheme  
2 that he's used would be used within that area. So we  
3 have not provided an example as I think that serves a  
4 purpose.

5 Q. I would like to move to you, Mr.  
6 Bisschop, and deal with the subject of preliminary  
7 areas of concern.

8 MR. FREIDIN: Mr. Bisschop and Mr.  
9 Multamaki I believe will be dealing with this matter  
10 and we are still within document -- pardon me, Part No.  
11 8 and the discussion on preliminary areas of concern,  
12 just for cross-reference purposes, is found at page 161  
13 of Exhibit 813A.

14 Mr. Chairman, I would like to mark as the  
15 next exhibit, again copies of some overheads and two  
16 interrogatories; two interrogatories being OFIA/OLMA  
17 Interrogatories No. 3 and 9, and perhaps we could mark  
18 these as documents re preliminary areas of concern --  
19 or, pardon me, re: Document 2, Part 8, Preliminary  
20 Areas of Concern.

21 MR. BISSCHOP: Excuse me, Mr. Freidin. I  
22 think you might be a bit mistaken. The exhibit  
23 material we want to look at is already in Exhibit 833.  
24 You are dealing with Part 9.

25 MR. FREIDIN: You're right. Sorry, Mr.

1 Chairman, scratch that.

2 THE CHAIRMAN: So scratched.

3 MR. FREIDIN: Q. Thank you, Albert.  
4 What is a preliminary area of concern, Mr. Bisschop?

5 MR. BISSCHOP: A. If I could refer to  
6 page 161 of the statement of evidence for Panel 15,  
7 Exhibit 813A, and as well to page C of Exhibit 833 in  
8 which there is an interrogatory from the OFIA on this  
9 subject, I can explain the idea of the concept of  
10 preliminary areas of concern.

11 I should advise - and I will probably  
12 come back to this later - that in a sense this concept  
13 is somewhat updated, certainly the term is somewhat  
14 outdated. I can recall when at one time we used to  
15 call this subject general areas of concern and, in some  
16 ways, the use of the word area of concern here is a bit  
17 inappropriate.

18 Really what we are talking about, and if  
19 I could refer to the interrogatory answer, we are  
20 talking about -- beginning at the second sentence of  
21 the first paragraph, we are talking about generalizing  
22 the values map. In effect, what we are looking at is,  
23 we are looking at the values map and doing an  
24 interpretation and generalization of that values map to  
25 identify large -- areas of values which cover large

1 areas, for example, a group of -- an individual or a  
2 group of lakes that are of interest to the tourism  
3 industry.

4 Another example might be a canoe route, a  
5 river and lake system with a canoe route, and what I  
6 refer to as clusters of site-specific values such as  
7 fish spawning areas, bald eagles' nests, et cetera.  
8 The idea is to try to get an overview picture of what  
9 is on the values map and do some kind of generalization  
10 of it.

11 I think the best way to demonstrate this  
12 is through, again, an example and I would like to come  
13 to the front and invite the Board again to come and see  
14 how the preliminary area of concern generalization is  
15 produced from the values map using Exhibit 301 which is  
16 the values map of the Timmins Forest.

17 MR. FREIDIN: Now, the Timmins map has  
18 previously been marked as Exhibit 301, Mr. Chairman.

19 MR. BISSCHOP: Again, by now you are  
20 probably familiar with this map, you have seen it many  
21 times and you are also probably familiar and have been  
22 given an explanation in Panel 7 of the legend that  
23 accompanies the map that describes the kinds of  
24 features that are on the map.

25 For the most part the features are very

1 site-specific and there is some general areas that are  
2 defined, for example the areas of -- moose  
3 concentration areas.

4 MR. FREIDIN: Q. Perhaps you could point  
5 those out as you speak to them.

6 MR. BISSCHOP: A. Specific features such  
7 as moose aquatic feeding areas which appear in red on  
8 the map. There is quite a congregation of them in the  
9 south half of the management unit.

10 The moose concentration areas are  
11 outlined in the hatched red; streams with fisheries  
12 values and lakes with fisheries values are outlined in  
13 blue, blue rivers and streams, blue coloured lakes; a  
14 number of other features are demonstrated on the map.

15 In terms of making this map useful for  
16 purposes which I will describe later, primary road  
17 planning, we try to step back from it and get a  
18 generalization of it. And as I indicated, what we are  
19 looking at is two things: areas where there are values  
20 that cover large areas within the management unit, for  
21 example lakes in which there is a tourism interest,  
22 canoe routes, et cetera, and clustering of  
23 site-specific values.

24 And I think, particularly when I show the  
25 overlay on it, you will get a visual impression of



1       that. I can get a visual impression of it just looking  
2       at the map. And what I would do is stand back from the  
3       map and attempt to visualize where I see clustering in  
4       particular.

5                       And on the overlay I have outlined in the  
6       south half of the management unit - and I'm just using  
7       a portion of the management unit to demonstrate this -  
8       where there is clustering, and if you look closely you  
9       can see, first of all, closely how I have done the  
10      generalization and then when you step back I think it  
11      becomes quite a visual impression to you.

12                      I have identified some major features,  
13      the canoe route that runs north/south in the south half  
14      of the unit.

15                      Q. How have you identified the clusters?

16                      A. The clustering is simply taking a  
17      look at, again, a grouping of site-specific values that  
18      I can generalize a larger area to cover them.

19                      Q. Is that what is denoted then by the  
20      areas outlined in green?

21                      A. Yes. The generalization of the map  
22      is outlined in green and you can see concentrations  
23      particularly in the very south four townships of the  
24      management unit, and you can see some of the larger  
25      values identified particularly in the linear features

1 related to the lakes and the rivers.

2 Now, there is some generalization that  
3 can't be done. For example, you see that there are  
4 some site-specific values that are simply left as  
5 individual site-specific features out there that I  
6 haven't attempted to generalize.

7 In effect what I am trying to do here  
8 is - because as I will describe in a moment and  
9 particularly in Part 9 of Document 2, the utility of  
10 this is primarily for primary road planning purposes -  
11 in effect what I am doing is identifying constraints to  
12 road location planning.

13 MR. FREIDIN: And we'll demonstrate in  
14 Part 9, Mr. Chairman, how using this map shows how  
15 those constraints can affect the location of primary  
16 roads planning.

17 MR. BISSCHOP: And I believe we should  
18 give this map another exhibit number. The overlay  
19 represents the exhibit.

20 THE CHAIRMAN: Okay. Exhibit 835.  
21 Describe that as Exhibit 301--

22 MR. FREIDIN: What do you want to call  
23 that?

24 THE CHAIRMAN: --with overlay?

25 MR. FREIDIN: Why don't we call it

1 Overlay 1 for Exhibit 301 because there will be another  
2 overlay on the same exhibit.

3 ---EXHIBIT NO. 835: Overlay No. 1 for the map of the  
4 Timmins Forest (Exhibit 301).

5 MR. BISSCHOP: There is just one point I  
6 would like to make. On that example I did a  
7 generalization for the entire management unit, I just  
8 used the values map and did a generalization.

9 Further on in the interrogatory answer I  
10 have indicated that these preliminary areas of concern  
11 generally are identified within the areas that are  
12 eligible and projected. For example, if there was no  
13 eligible areas in the north half of the unit, I  
14 wouldn't bother to do this generalization.

15 MR. FREIDIN: Q. Okay. And, Mr.  
16 Multamaki, I understand that you addressed the subject  
17 of preliminary areas of concern in your plan?

18 MR. MULTAMAKI: A. Yes, I did.

19 Q. And did you have a values map at the  
20 time you prepared your plan?

21 A. No, I did not.

22 Q. And I understand that there was no  
23 requirement at that time to have a values map?

24 A. That's correct, there was no  
25 requirement at that time.

1 Q. Can you advise the Board how you  
2 dealt with the identification of preliminary areas of  
3 concern without a values map?

4 A. Yes. Even though I didn't have a  
5 values map at the time that the preliminary area of  
6 concern process was done, we did have a databank which  
7 essentially contained all of the information that would  
8 have been presented on a values map. So it wasn't as  
9 convenient, I guess, as having access to a values map,  
10 but the information in fact was there.

11 Q. And I understand the proposed timber  
12 management planning process will require the production  
13 of a values map?

14 A. Yes. The requirement is in fact now  
15 in place. If I could get the Board to turn to page 91  
16 of Exhibit 814. At the bottom of page 91 you see a  
17 section entitled: 7.1.2, Preliminary Identification of  
18 Areas of Concern. This is where the preliminary areas  
19 of concern is documented within the text of the Red  
20 Lake Crown plan.

21 Moving on to page 92 there were really  
22 two areas of where preliminary -- or subject matters  
23 where preliminary areas of concern were identified.  
24 The first was for tourism values.

25 If you look halfway down page 92 you see



1 7.1.2.1, Preliminary Identification of Areas of  
2 Concern, Tourism and there are three components,  
3 component A, B and C.

4 Really what we are dealing with there is  
5 identifying, as preliminary areas of concern, under  
6 component A those lakes with lodges; under component B,  
7 those lakes that have outpost camps; and under C, those  
8 water bodies that are either canoe routes or travel  
9 routes. And really what we are indicating here, we  
10 indicated in the Red Lake Crown plan were areas of high  
11 value tourism in the form of lodges, outpost camps and  
12 travel routes.

13 If you look at the bottom of page 92 we  
14 also identified the area of fisheries as a preliminary  
15 area of concern under 7.1.2.2 and we really had only  
16 one criteria under that and that was the existence of a  
17 waterbody with resident lake trout population; for  
18 example, those water bodies on the Red Lake Crown  
19 Management Unit that had resident lake trout were  
20 identified as a preliminary area of concern.

21 Q. Now, who identified the criteria or  
22 identified this particular approach?

23 A. With respect to the fish and  
24 fisheries values, that was the fish and wildlife  
25 representative on the planning team. It was a planning

1 team decision, but he was the lead person or the lead  
2 representative for that.

3 Q. Now, was a map prepared?

4 A. Yes. We have a 1:250,000 scale  
5 preliminary area of concern map that was contained in  
6 Book 2, Appendix D and, in fact, we called it the  
7 eligibility maps.

8 Q. I can't recall that particular map.  
9 Would it be easier to look at that map, Mr. Multamaki?

10 A. Yes. We should perhaps put it up in  
11 front of the Board and we can show how in fact we  
12 influenced long-term road projections on the Red Lake  
13 Crown.

14 Q. All right. Perhaps we can --

15 THE CHAIRMAN: Do you want to give it a  
16 new number? Exhibit 836. What do you want to call it,  
17 Mr. Multamaki?

18 MR. MULTAMAKI: 20-year Preliminary Areas  
19 of Concern and Primary Road Corridor Options Map.

20 ---EXHIBIT NO. 836: 20-year Preliminary Areas of  
21 Concern and Primary Road Corridor  
Options Map.

22 MR. MULTAMAKI: The scale on this map is  
23 relatively small, however on it you can see that the  
24 tourism areas were identified through a brown outline,  
25 basically around those lakes that contain one of the

1 features I have previously described; the lake trout  
2 lakes were identified as a red outline around the  
3 lakes; and the road corridor -- primary road corridor  
4 options were identified in a variety of colours.

5 They also had option numbers attached to  
6 them and, just for consistency sake, we had identified  
7 the red road option and the highest number as being the  
8 proposed option within the plan. And I think that is  
9 really all I need say about this map.

10 MR. FREIDIN: Mr. Chairman, we will be  
11 going back to this map when we get to primary road  
12 corridor planning.

13 Q. I would like to just clear up one  
14 point that may cause some confusion - and, Mr.  
15 Bisschop, perhaps you could assist - and I refer to  
16 page 133 of the Environmental Assessment Document,  
17 Exhibit 4, and this appears in the section regarding  
18 identification of preliminary areas of concern which  
19 starts on the preceding page.

20 And if I could just go down to the last  
21 paragraph on page 133 in relation to preliminary areas  
22 of concern, starting at line 24 it says that:

23 "The concept of areas of concern is  
24 formally addressed in MNR's policy for  
25 the integration of other resource values

1 in timber management and the accompanying  
2 procedure for its implementation."

3 Is the policy referred to the one which  
4 was identified in Panel No. 1 and which has been  
5 rescinded?

6 MR. BISSCHOP: A. Yes, that is the  
7 policy.

8 Q. And could you just perhaps indicate  
9 to the Board the reason for rescinding that policy?

10 A. The Board may recall that Mr. Douglas  
11 in the evidence of Panel 1 addressed this subject.  
12 Basically the policy has been rescinded because all of  
13 the contents and requirements of that policy have been  
14 directly incorporated into the planning process  
15 outlined in the Class EA and the subsequent plan  
16 requirements that are outlined in the Timber Management  
17 Planning Manual.

18 In effect, the policy/procedure for  
19 dealing with areas of concern preceded the written  
20 production of the same material in the Class EA and the  
21 production of the Class EA has now superseded that  
22 direction.

23 Q. Now, Mr. Bisschop, I understand by  
24 way of summary then you would like to make a few  
25 comments regarding the section of this part of Document



1 2 regarding preliminary areas of concern and we want to  
2 refer to 853D?

3 A. 833D.

4 Q. That's right, 833D.

5 A. I have spoken to the subject matters  
6 outlined on this overhead briefly earlier and I would  
7 like to expand a little on that.

8 First of all I think, as I have mentioned  
9 earlier, the word preliminary areas of concern and the  
10 idea perhaps has evolved considerably since what we  
11 have written in the Class EA. We should think of it as  
12 a concept rather than any kind of a product.

13 The idea is to - as indicated in the  
14 second bullet, initial use of the values map  
15 information - to get a general overview of the values  
16 that exist on the unit and to do some kind of a  
17 generalization of that values map for use in subsequent  
18 planning steps.

19 Just to go back to Mr. Multamaki's  
20 example, that product, the way he explained it for  
21 preliminary areas of concern, was produced in 1986 and,  
22 as he indicated, there was no requirement for a values  
23 map at that time and his explanation of how he  
24 identified preliminary areas of concern was his attempt  
25 for that unit to address that requirement and they

1 developed their criteria and defined their idea of  
2 preliminary areas of concern.

3 The new direction is basically to take  
4 the values map and generalize it and from that you  
5 create the areas of concern. So it's a more simple  
6 automatic step I would suggest.

7 Q. Identify the preliminary areas of  
8 concern?

9 A. That's right, the preliminary areas  
10 of concern. And I guess the reason that there is the  
11 area of concern label to all of this is that generally  
12 we are looking at values in which operations may have  
13 some effect on those values, either directly on the  
14 value or in the vicinity of those values.

15 We will speak later in Part 11 of this  
16 document about the relationship between values and  
17 specific areas of concern when it comes to the area in  
18 which we carry out operations.

19 On the third bullet, and I mentioned this  
20 just before Mr. Multamaki began, generally the idea is  
21 to direct your efforts in preliminary area of concern  
22 identification, generalization of the values map,  
23 within the areas that are eligible or projected for  
24 operations during the 20 years. You wouldn't direct  
25 the effort to parts of the management unit where there

1 are no eligible areas.

2 And finally and most importantly, and  
3 this provides the lead really to Part 9 of Document 2  
4 which we will speak to next, the whole purpose in  
5 producing these preliminary areas of concern is for use  
6 in the long-term primary road corridor planning which,  
7 as I said, we will discuss next.

8 In effect, and I have mentioned it  
9 earlier and to many people who are familiar with linear  
10 facility planning through environmental assessment, we  
11 are doing a form of constraint mapping and the idea  
12 would be to -- in your planning of facility locations,  
13 to as best as possible avoid these areas with your  
14 linear facilities, in this case primary roads, and  
15 where you do have to affect them, to minimize as much  
16 as possible your intrusion into those areas.

17 Q. Thank you.

18 MR. FREIDIN: Well then, Mr. Chairman, if  
19 we could move on then to --

20 THE CHAIRMAN: When were you planning to  
21 stop? We are suggesting that we stop now.

22 MR. FREIDIN: I wasn't going to stop, Mr.  
23 Chairman, I was just going to keep going. But this is,  
24 I guess, as convenient a time as any.

25 THE CHAIRMAN: All right. We are

1 planning to break until 1:30.

2 MR. FREIDIN: Okay.

3 THE CHAIRMAN: Thank you.

4 ---Luncheon recess taken at 12:05 p.m.

5 ---On resuming at 1:35 p.m.

6 THE CHAIRMAN: Thank you. Be seated,  
7 please.

8 MR. FREIDIN: Okay. Mr. Chairman, the  
9 next section we would like to deal with is Part 9 of  
10 Document No. 2 dealing with primary road corridors.

11 It starts on page 163 of exhibit --  
12 pardon me, 813A. And I would like to begin by filing  
13 as the next exhibit the document that you scratched  
14 earlier.

15 THE CHAIRMAN: At your request.

16 MR. FREIDIN: At my request, and I will  
17 try again to describe it.

18 It is a four-page document, includes two  
19 overheads and two interrogatories, interrogatories  
20 being OFIA/OLMA Interrogatories No. 3 and 9 on that  
21 panel.

22 I ask that it be marked as documents re  
23 Document 2, Part 9, primary road corridors.

24 THE CHAIRMAN: Exhibit 837A, B, C and D,  
25 whatever.





1 They provide the long-term access to the areas that  
2 have been identified as eligible for operations or  
3 where the option of projected operating areas is being  
4 used.

5 Q. Maybe you could slow down a little  
6 bit, Mr. Bisschop.

7 A. Where the option of projected  
8 operating areas is being used they would provide the  
9 access to those projected operating areas. We are  
10 talking here about the main access system for the unit  
11 and the new road -- new primary road requirements would  
12 be defined as one-kilometre corridors.

13 Q. And that would be for the 20-year  
14 period?

15 A. That's correct.

16 Q. Why do you plan the location of  
17 corridors for primary roads 20 years in advance?

18 A. For the main access system for the  
19 unit, we're trying to avoid a piecemeal approach to  
20 road design -- the design of the access system and road  
21 construction. We want to make sure that short-term  
22 locational decisions are made within a broader  
23 long-term context. We obviously want to minimize the  
24 number of primary roads that would be required. We are  
25 dealing with roads that are fairly major expenditures.

1                   We are also looking at not only access  
2                   within the management unit that we are dealing with in  
3                   the particular plan we are looking at, but we are also  
4                   considering the primary access system in adjacent  
5                   management units, so we are trying to rationalize that  
6                   primary system both within the management unit and in  
7                   consideration of the access system in adjacent  
8                   management units.

9                   We are providing -- through looking at  
10                  the long-term general direction nature of these access  
11                  roads, we are providing the public and any potentially  
12                  directly affected parties with advance notice of the  
13                  possibility of primary road locations so that they can  
14                  express any concerns that they might have about them  
15                  through the public consultation opportunities.

16                 I've mentioned that road construction is  
17                 an expensive matter, especially when it comes to the  
18                 primary road system, and the Crown and the forest  
19                 industry obviously have a major financial interest in  
20                 the decisions that are being made about primary roads.  
21                 We want to make sure that the expenditures on those  
22                 roads are justifiable.

23                 Also, there may be some additional  
24                 long-term investments in other physical improvements  
25                 related to the primary access systems such as work

1 camps and air strips for some of the operations we  
2 carry out aerially. And in terms of the interest of  
3 non-timber resource management, both within MNR and  
4 external to MNR, information on the general direction  
5 nature of primary access is useful to those interests  
6 because they want to know where those primary roads go.

7 It could be useful in terms of any future  
8 development proposals that might be contemplated by  
9 those other programs, or it may be useful to avoid  
10 any -- to avoid development kinds of things in areas  
11 where access is being provided. For example, the  
12 Ministry of Tourism and Recreation, for example, would  
13 be looking at the primary access system in terms of any  
14 future developments related to the remote tourism  
15 industry.

16 Q. Could you describe for us, Mr.  
17 Bisschop, the planning requirements for determining the  
18 location of primary road corridors, and perhaps you  
19 could also, when you are dealing with that, address  
20 your mind to the documentation requirements for that  
21 planning?

22 A. Yes. I will be referring in detail  
23 to the first overhead in the Exhibit 837 and when I'm  
24 discussing that overhead I will make reference to the  
25 two interrogatories that are attached.



1                   When we were dealing with primary road  
2     planning we're entering into a -- one of the  
3     considerations in planning where we are looking at the  
4     question of alternatives. For primary road corridors  
5     there are requirements to consider alternative  
6     corridors, to carry out an analysis of those  
7     alternatives, and to select a preferred alternative and  
8     provide a rationale for that selection. The basic  
9     elements of an environmental assessment style analysis.

10                  To deal first of all with identification  
11     of alternative corridors, what we are talking about  
12     here is identifying one kilometre wide corridors and in  
13     that identification we're considering the subject of  
14     areas of concern, preliminary areas of concern, as I  
15     introduced this morning. The objective would be to  
16     avoid as much as possible and, where we have to intrude  
17     into areas of concern, preliminary areas of concern, we  
18     would want to minimize the intrusion into those areas.

19                  On page 165 of the statement of evidence,  
20     Exhibit 813A, we have produced a very simple schematic  
21     that demonstrates identification of one-kilometre  
22     corridors.

23                  Q. Can we just hold on until everybody  
24     gets that page, Mr. Bisschop. Okay.

25                  A. And a couple of points I would like

1 to make here is that if you recall we are talking about  
2 general direction nature of primary planning. A  
3 consideration that comes into play here of course is  
4 the source from which that road will come and the  
5 direction it's going into.

6 In this schematic we have indicated that  
7 we're looking at coming up to the area eligible, which  
8 is portrayed in yellow, from the south and there are  
9 two alternatives identified there, or perhaps from the  
10 east, that's looking at general direction from a  
11 different source.

12 Also we're demonstrating through that  
13 schematic how the corridor would be located to avoid  
14 areas of concern where possible, as in the case of the  
15 example from the east, and the most easterly example  
16 coming up from the south and sometimes we have to cross  
17 preliminary areas of concern and that's portrayed in  
18 the most westerly example.

19 I think, as I indicated earlier this  
20 morning in the discussion on preliminary areas of  
21 concern, I could bring perhaps a more real-life  
22 dimension to this approach through using the  
23 preliminary area of concern map for the Timmins Forest  
24 and demonstrate how they identified road corridors that  
25 addressed the question of areas of concern, preliminary

1 areas of concern.

2 One point I would like to make is that  
3 preliminary areas of concern are of course only one  
4 consideration in the determination of the location.  
5 There are other factors involved.

6 First of all, and very importantly, you  
7 are trying to provide access to the areas that have  
8 been identified as eligible. Other factors involved  
9 may be simple physical and natural considerations such  
10 as topography, existence of lakes and watercourses,  
11 that sort of thing. But through the example of the use  
12 of the Timmins Forest preliminary area of concern map I  
13 can demonstrate a real-life example of how they  
14 considered preliminary areas of concern in the  
15 identification of road corridors for their primary  
16 roads.

17 (Mr. Davison holding up map)

18 THE CHAIRMAN: The clothesline approach  
19 doesn't work, eh, Mr. Freidin.

20 MR. FREIDIN: Well, I thought we were  
21 going to do that on the large map, obviously we are  
22 not.

23 MR. BISSCHOP: We had originally intended  
24 to do it on the Timmins Forest values map but the map  
25 got too busy and you wouldn't be able to see what we

1 are trying to portray.

2 What I have done here is simply taken the  
3 preliminary area of concern mapping that I demonstrated  
4 this morning --

5 MR. FREIDIN: Just one second. Mr.  
6 Chairman, I can't see from back here, I don't know  
7 whether the Board can see from back there. It might be  
8 a situation where you might want to come up.

9 THE CHAIRMAN: Are you going to get into  
10 the fine detail--

11 MR. BISSCHOP: If you can see the  
12 yellow --

13 THE CHAIRMAN: --or are we just looking  
14 at the black lines and the yellow?

15 MR. BISSCHOP: If you can see yellow,  
16 black lines and dotted blue lines, that's all you need  
17 to see.

18 THE CHAIRMAN: Okay. We're okay from  
19 here then.

20 MR. FREIDIN: Q. Go ahead, Mr. Bisschop.

21 MR. BISSCHOP: A. What I have simply  
22 done is taken the generalized preliminary area of  
23 concern information and portrayed it on a white  
24 background and made the areas I outlined in green a  
25 yellow shaded area.



1                   The black lines on the map indicate the  
2                   existing primary access roads and the dotted blue lines  
3                   represent the one kilometre wide corridors for the  
4                   primary roads that were identified in that plan  
5                   including the identification of alternatives.

6                   I simply took from the plan that was  
7                   produced their one-kilometre corridors and transferred  
8                   them on to this base and you can see in the bottom half  
9                   of the map in particular where -- first of all, where  
10                  the consideration of preliminary areas of concern came  
11                  into defining the location of the corridors, the idea  
12                  of avoiding the constraints that I spoke to this  
13                  morning; secondly, the identification of some  
14                  alternatives, particularly in the south in terms of the  
15                  corridor in the - if I can go from memory here, I'm not  
16                  seeing the picture - the corridor at the top.

17                  I can't respond to why there isn't an  
18                  alternative identified there, I didn't look into that  
19                  matter, but in the bottom part of the map you can see  
20                  how alternatives were identified. The idea would be  
21                  that those alternatives would be analysed to select a  
22                  preferred alternative.

23                  THE CHAIRMAN: Do you want to give it a  
24                  number, Mr. Freidin?

25                  MR. FREIDIN: I think so. Perhaps we can

1 just call it primary road corridors, Timmins.

2 THE CHAIRMAN: Exhibit 838.

3 ---EXHIBIT NO. 838: Map depicting primary road  
4 corridors, Timmins.

5 MR. BISSCHOP: So we have now identified  
6 alternative one-kilometre corridors to provide access  
7 to the areas that are eligible. We then carry out an  
8 analysis of each of those alternatives and basically  
9 it's a very broad analysis that attempts to address  
10 four factors.

11 MR. FREIDIN: Q. Now, we are referring  
12 back to your overhead which is Exhibit 837A?

13 MR. BISSCHOP: A. Yes, and I am moving  
14 now to the third bullet on that overhead which has four  
15 parts. We look at four factors, one factor being: How  
16 well do the alternatives provide access to the areas  
17 that are eligible. It's a simple matter of some  
18 alternatives may provide less than direct access.

19 We do an assessment of how well  
20 preliminary areas of concern have been accommodated.  
21 In simplest terms and, based on this consideration  
22 only, if you were to avoid areas of concern entirely an  
23 alternative that did that would be preferable of course  
24 to one that would affect preliminary areas of concern.

25 There is a broad estimate of the

1 construction, transportation and maintenance costs  
2 associated with the alternative, a simple matter of  
3 trying to estimate the costs of the construction of the  
4 road which is as simple as distance times dollars per  
5 kilometre to get an estimate of construction costs.  
6 The same distance kinds of factors would be considered  
7 in the question of transportation and maintenance  
8 costs.

9 And fourth, and a very important  
10 consideration, is a consideration -- the development  
11 consideration of whatever use management strategy might  
12 be employed for any one of the alternatives. Again,  
13 Panel 14 spoke to this whole subject of use management.  
14 The point here is that the question of use management  
15 is addressed because it may be a determining factor in  
16 terms of which alternative is selected.

17 THE CHAIRMAN: When you look at your  
18 second criteria, the preliminary areas of concern  
19 accommodated, you say that at this stage you just look  
20 as to whether or not it can be avoided or not, or do  
21 you look at the actual concern, what it is, and try and  
22 evaluate that say as against, for instance, three,  
23 increased cost because of distance?

24 MR. BISSCHOP: It would be a combination  
25 of both. You'd be looking, first of all, if you can

1       avoid them all the better from the perspective of that  
2       factor alone; but, secondly, in terms of if you do have  
3       to go through the area of concern, you would be  
4       interested in knowing what it is you are exactly  
5       dealing with and the values map would supply that.

6               THE CHAIRMAN: Well, what if it's a  
7       concern where increased transportation or availability  
8       of access would be positive, such as accessing a  
9       tourist region?

10              MR. BISSCHOP: Is your question whether  
11       or not that consideration would --

12              THE CHAIRMAN: At this stage would you  
13       look at that as opposed to just trying to avoid it? I  
14       mean, it may be a positive factor that you wouldn't  
15       want to avoid it.

16              MR. BISSCHOP: Yes, you're correct, that  
17       would a consideration as well. Positive and negative  
18       considerations.

19              THE CHAIRMAN: So you have to assume that  
20       if you are going to avoid it, it is going to be a  
21       negative factor?

22              MR. BISSCHOP: That's correct. I  
23       shouldn't -- I tend to often emphasize the negative  
24       and we should be looking at the positive as well.

25              So again we're dealing with a fairly



1       general kind of analysis. We're not looking  
2       specifically at the details of what that one-kilometre  
3       road would encounter along its entire length, we're  
4       looking in general to try to make a decision from  
5       amongst the alternatives to decide on the preferred  
6       alternative from a general directional kind of  
7       perspective.

8                   MRS. KOVEN: Don't you find your mapping  
9       a bit distorting in that sense though?

10                  When we look at these maps we are not  
11       sure whether you are looking at individual values that  
12       you have already -- that you know about or whether we  
13       are looking at a clustered -- values in a cluster in an  
14       area, and it seems to me that when you do that kind of  
15       mapping in terms of the areas of concern there is  
16       really safety in numbers because you will take a wider  
17       path around a cluster area than you will one point.

18                  MR. BISSCHOP: Yes, I understand what  
19       you're saying and, yes, you are correct, there is a  
20       distortion there. Arguably you could avoid some of  
21       those specific areas anyway when you are actually  
22       locating the precise location of the road.

23                  In the preliminary areas of concern,  
24       especially when you're doing some generalization of  
25       clusters, you are almost drawing attention to that

1 whole area is of concern when you've really got  
2 specific features within it that are that could be  
3 avoided. That's your point?

4 MRS. KOVEN: Mm-hmm. And the point is if  
5 you have got three or four values in some area that you  
6 are going to cluster, are you really putting a wider  
7 boundary around those values than you are in a single  
8 one set off by itself?

9 MR. BISSCHOP: That's correct. That's  
10 why -- I shouldn't emphasize too strongly that  
11 preliminary areas of concern are a major determining  
12 factor in terms of what gets selected. They are a  
13 consideration in terms of identifying the corridors  
14 and, through having to identify alternatives, obviously  
15 one would want to take a close look at alternatives  
16 that did affect any preliminary areas of concern to  
17 make sure that you are not making -- you are not just  
18 making your decision to avoid concerns when you could  
19 be dealing with it very specifically at the next level.

20 MR. FREIDIN: Q. Mr. Bisschop, you made  
21 some comment that - and I may have got you  
22 incorrectly - but did you say that the clusters are not  
23 that important when you get down to the selection; is  
24 that what you said? I just didn't get your words down  
25 correctly.

1                   MR. BISSCHOP: A. No. I'm saying that  
2                   the clustering does draw emphasis to additional area  
3                   than the specific feature that you are encountering.  
4                   By clustering you are drawing in additional land area  
5                   and presumably you could avoid the specific features  
6                   through detailed planning of the road location to avoid  
7                   them.

8                   Q. All right. So when you said made  
9                   reference to the selection, what were you referring to,  
10                  the selection of what?

11                  A. The selection of a preferred  
12                  corridor. You should look very closely at the question  
13                  of just exactly how are you identifying -- I mean, how  
14                  are you affecting those preliminary areas of concern,  
15                  so you'd want to look at what's lying behind the yellow  
16                  on the map that I used.

17                  Q. Thank you.

18                  A. Going to the fourth point on the  
19                  overhead, the results of that analysis then provide the  
20                  information that allows for the selection of a  
21                  preferred corridor and, of course, provides the  
22                  rationale for your decision.

23                  The analysis needs to be documented and  
24                  it's documented in the supplementary documentation that  
25                  accompanies the plan and the rationale for your

1 decision also accompanies that supplementary  
2 documentation.

3 I should go back very briefly to bullet  
4 point No. 2 and refer to the OFIA Interrogatory No. 3.

5 Q. That's Exhibit 837B.

6 A. Essentially they are asking the  
7 question: Why must alternative corridors be identified  
8 if there are no preliminary areas of concern to deal  
9 with. In the second paragraph we provide an  
10 explanation that basically gets back to my original  
11 comments on why we do primary road planning at the  
12 20-year level. We want to consider the question of  
13 alternatives not exclusively to deal with the subject  
14 of areas of concern, but to make sure that all suitable  
15 alternative locations are being examined and that we  
16 can rationalize our decisions on primary road locations  
17 because we're interested in the long-term directional  
18 nature of those roads and we want to make reasonable,  
19 efficient decisions on the location of those roads.

20 Also there may be sort of the broad  
21 program interest of other programs in the Ministry and  
22 other ministries, for example, that are not represented  
23 just through the area of concern approach that we'd  
24 want to take into consideration in looking at the  
25 subject of primary road locations. All of that would



1 support then a decision on a preferred location for a  
2 road alternative.

3 Turning back to Exhibit 837A, the last  
4 bullet, we commonly use the words 'consider' along with  
5 the word 'identify' when we are talking about the  
6 subject of alternatives, and we use that word  
7 'consider' deliberately because there may be situations  
8 where it's simply not possible to identify another --  
9 more than one suitable alternative, one suitable  
10 location. That is something that is possible to employ  
11 during timber management planning.

12 When it is, we still have to conduct the  
13 analysis that we referred to in the third bullet and we  
14 have to provide a justification as to why there were no  
15 other suitable alternatives available and that may be  
16 possible, for example, when -- to locate a primary  
17 access road to access an eligible area in a unit you  
18 may have to locate your primary road corridor between  
19 lakes that are in very close proximity and there's only  
20 one option available to you.

21 In exhibit -- in Part C of Exhibit 837 we  
22 address this question of what is the -- we address  
23 OFIA's question of: What is the nature of the  
24 justification that's required. And the essence of the  
25 response is that we expect that this will always have

1 to be addressed on a case-by-case basis but, in  
2 general, we could say that what is required in terms of  
3 a justification as to why there is only one suitable  
4 alternative is some kind of a description of the  
5 conditions that are encountered in the particular  
6 situation that can support the conclusion that there  
7 are no other alternatives.

8 For example, the reference I made earlier  
9 to: We may be forced to go between two lakes to access  
10 an area that's eligible further to the north of those  
11 lakes, for example. In that description we'd expect to  
12 see some kind of discussion of the topographical  
13 conditions that are encountered, the pattern and  
14 distribution of waterbodies and watercourses, including  
15 limitations on suitable water crossings and, for  
16 example, the locations and abundance of the other  
17 values that could be affected.

18 So the point of this response is that --  
19 the question was: What kind of justification do we  
20 need to produce, does MNR expect to see, and we  
21 provided an explanation that it will be case by case,  
22 but generally describe the kinds of conditions that are  
23 encountered in your management unit that lead to the  
24 conclusion that there are no suitable alternatives to  
25 be examined.

1                   We've addressed the subject of the  
2           primary road corridor planning requirements in a draft  
3           term and condition. I'm sorry, I can't recall the  
4           exhibit number now.

5                   Q.   Exhibit 700.

6                   A.   700. In draft term and condition  
7           15(a). Mr. Chairman, I'm not sure whether you want to  
8           me to read that into the record or...

9                   THE CHAIRMAN: Well, I think as long as  
10          the reporter gets it all down that would be sufficient.

11                  MR. FREIDIN: Q. Perhaps you could just  
12          highlight what it speaks to, Mr. Bisschop.

13                  MR. BISSCHOP: A. It speaks to the  
14          requirement to consider and analyse alternative  
15          corridors; it speaks to the nature of the analysis, the  
16          four points I spoke to about assessing the  
17          effectiveness of access, how well areas of concern are  
18          addressed, estimate of costs, and the subject of use  
19          management; and it speaks to the requirement for  
20          documentation of that analysis and the rationale for  
21          the selection of a preferred corridor.

22                  MR. FREIDIN: Q. Mr. Multamaki, if I can  
23          just switch to you for a while. If you go back to 1986  
24          in your plan, are you able through reference of that  
25          plan to demonstrate this part of the process?

1 MR. MULTAMAKI: A. Yes, I am. Perhaps  
2 the easiest way to demonstrate this is to go back to  
3 the maps and do a bit of a presentation perhaps out  
4 front here.

5 Q. How many maps are we going to use  
6 here?

7 A. We'll use three separate maps and  
8 follow it through from -- through the eligibility map  
9 to the -- through the preliminary area of concern map  
10 to the actual documentation map.

11 Q. Now, are you going to have to have  
12 any of those -- are you going to have to have two or  
13 more of those up at the same time or will one easel be  
14 sufficient?

15 A. We should have all three of them up  
16 at the same time.

17 Q. So we will need three of these easels  
18 here. Okay.

19 Mr. Multamaki, you have three maps up  
20 there, two of them have already been marked as  
21 exhibits. Could you just identify which exhibited maps  
22 you have in front of you?

23 MR. MULTAMAKI: A. Yes. The map  
24 immediately to my right, the large one with the green  
25 and yellow, is Exhibit 834, that is the eligibility map



1 for the Red Lake Crown Management Unit, Part A.

2 The centre map is the 20-year Preliminary  
3 Areas of Concern and Primary Road Corridor Options Map  
4 marked Exhibit 836. And this map on the far end here  
5 is the -- doesn't actually have a map, it's out of the  
6 roads documentation for what we call the Valhalla Road  
7 for the Red Lake Crown Management Unit and it shows --  
8 demonstrates the four options. It doesn't have an  
9 exhibit number.

10 MR. FREIDIN: All right. Can we give  
11 that an exhibit number, Mr. Chairman.

12 THE CHAIRMAN: Exhibit 839.

13 MR. FREIDIN: Q. And perhaps we  
14 should -- what should we describe that as, Mr.  
15 Multamaki?

16 MR. MULTAMAKI: A. Just Valhalla Road  
17 options.

18 Q. And the scale of that one is  
19 1:50,000?

20 A. Yes, the scale of that is 1:50,000.

21 MR. FREIDIN: Okay.

22 ---EXHIBIT NO. 839: Valhalla Road Options map.

23 THE CHAIRMAN: Are we going to have to  
24 trot up there?

25 MR. MULTAMAKI: Given the level of detail

1 on these maps, it perhaps would be best to do it from  
2 the floor here.

3 Okay. I guess we have seen the map on  
4 the right, the eligibility map. The area that we are  
5 talking about here planned for primary access through  
6 the Valhalla Road is that area up top in the northern  
7 section. Little Vermilion Lake is here, Red Lake again  
8 runs here, the Town of Red Lake is there, Fire No. 7.  
9 (indicating)

10 MR. FREIDIN: Q. The areas that you say  
11 you are trying to access is the area that is located  
12 where on the map?

13 MR. MULTAMAKI: A. It's right up there  
14 in the northern part of the Red Lake Crown Management  
15 Unit.

16 Q. All right. So it's basically to  
17 the --

18 A. Directly north of Red Lake.

19 Q. And to the west of the northern part  
20 of Little Vermilion Lake?

21 A. That's correct. This preliminary  
22 area of concern map here in the centre is --

23 Q. Exhibit 836?

24 A. Exhibit 836 is at a scale of  
25 1:250,000. When you look at the area being accessed

1       that is shown up here in the top section -- again, Red  
2       Lake is down here, basically in the centre of the map,  
3       Little Vermilion Lake is here.

4               The existing road system is shown in  
5       black, you can see the Pine Ridge Road runs along  
6       through the centre of the Crown management unit, the  
7       Nungesser Road - whoops, sorry - runs here.

8               Q.   You are indicating --

9               A.   That is the existing road system.

10              Q.   That Nungesser Road is marked on the  
11       map?

12              A.   That's correct, it is.   Now, during  
13       the identification of preliminary road corridors,  
14       originally prior to Fire 7 there were three corridors  
15       identified going north off of the Pine Ridge Road.  
16       That -- those were this option here, Option 1, 2 and 3.  
17       Option 1 is there in blue, Option 2 in purple and --  
18       sorry, Option 2 in green and Option 3 in purple.   The  
19       red option coming down off of the Nungesser Road was  
20       not identified in the first plan.

21              What happens, we went to the information  
22       centre and in fact that alternative was identified by  
23       the tourist operators on Little Vermilion Lake itself  
24       and, of course, the fire happened in 1986 and we were  
25       into preparing a new plan or a new draft.

1                   This map on the end here is an enlarged  
2                   portion of this, it's 1:50,000 scale, it's simply this  
3                   part of the Red Lake Crown Management Unit and the  
4                   Berens River Crown Management Unit.

5                   Q. All right. Just stopping there

6                   MR. FREIDIN: What exhibit number was  
7                   that?

8                   THE CHAIRMAN: That would be Exhibit 839.

9                   MR. FREIDIN: Q. Exhibit 839 is a blowup  
10                  of part of Exhibit 836, in particular, the area around  
11                  Little Vermilion Lake where you have identified  
12                  optional road corridors?

13                  MR. MULTAMAKI: A. That's correct. And  
14                  on this map you can see that the Pine Ridge Road in  
15                  fact is the black line at the bottom.

16                  Alternative 1 was identified as here  
17                  adjacent to Little Vermilion Lake, Alternative 3 in the  
18                  centre of the map, Alternative 2 in green to the west  
19                  or the left-hand side of the map. The preferred and  
20                  proposed Alternative is No. 4 in red. Incidentally,  
21                  those two circles are identified stream crossings and  
22                  are documented later on in the process as such.

23                  The interesting point, as I have  
24                  mentioned, is that Option No. 4, the preferred option,  
25                  was in fact identified through the initial -- or the



1 first original draft plan process or the information  
2 centre for the original preparation of the draft plan.  
3 MNR did not identify it, in fact the tourist operators  
4 did.

5 MRS. KOVEN: What was the reaction of the  
6 Berens Crown Management Unit to --

7 THE REPORTER: I'm sorry, I can't hear  
8 you.

9 MRS. KOVEN: How does the adjoining Crown  
10 management unit react when it's suggested that most of  
11 these roads will be...

12 MR. MULTAMAKI: We looked at that issue  
13 and in fact pursued it up internally within the  
14 Ministry and as it's road access to the Red Lake Crown  
15 Management Unit and the timber volumes in this area, it  
16 was simply a crossing of the Berens River Crown  
17 Management Unit not access for wood allocation purposes  
18 as such.

19 THE CHAIRMAN: Could it not be used for  
20 that later on?

21 MR. MULTAMAKI: Any road could,  
22 certainly, yes.

23 THE CHAIRMAN: Secondary roads...

24 MR. MULTAMAKI: Should that management  
25 unit become active, it would be certainly a source of

1 access.

2 MRS. KOVEN: Is that identified as the  
3 eligible area of operations as referred to --

4 THE REPORTER: I'm sorry, I can't hear  
5 you.

6 MRS. KOVEN: I was asking whether or not  
7 the Berens River Crown Management Unit had a timber  
8 management plan and if that was an area eligible for  
9 operations?

10 MR. MULTAMAKI: And the answer was that,  
11 no, it does not have a timber management plan prepared  
12 for it at this point in time and that area was not  
13 considered eligible for timber operations.

14 MR. FREIDIN: Q. Can you advise, Mr.  
15 Multamaki, were any of the three maps which we have up  
16 as exhibits, Exhibit 834, Exhibit 836 and 839 available  
17 at the information centres which we will hear about  
18 later?

19 MR. MULTAMAKI: A. Yes. In fact all  
20 three of them were available at the information centre  
21 and set up in a similar fashion to what they are now.  
22 This map of course, Exhibit 839, was available but not  
23 up on the wall as such, it was available in a folded  
24 format and in the binders.

25 Q. In book numbers -- what has been

1 marked as Book No. 7 of your plan?

2 A. Yes, it was in Book No. 7 as part of  
3 the roads documentation.

4 MR. MARTEL: What significance --

5 MS. SWENARCHUK: Mr. Martel...?

6 MR. MARTEL: Isn't that significantly  
7 further to get it to its ultimate destination via the  
8 fourth alternative?

9 MR. MULTAMAKI: The road distances, as I  
10 remember it, are relatively similar. It's a little bit  
11 further to go via the red option or the preferred  
12 alternative.

13 I guess one of the key determining  
14 factors on that was the fact that the Nungesser Road in  
15 fact is an MTC highway that is paved, it's hard-topped,  
16 and when you start to look at wood haul, the tradeoff  
17 there was between distance on a gravel road -- or,  
18 shorter distance over a gravel road as opposed to  
19 slightly longer distance over mostly paved road.

20 And in fact you find that, generally  
21 speaking on the Red Lake Crown, the operators would  
22 prefer hauling on a paved road as opposed to gravel  
23 simply because of the repair costs and road maintenance  
24 costs, as well the Nungesser Road was maintained by  
25 MTC which meant snow plowing, salting, the whole nine

1 yards.

2 MR. FREIDIN: Do you have any questions?

3 MRS. KOVEN: How did the tourist  
4 operators make an input into the selection of a fourth  
5 alternative at the public information session?

6 MR. MULTAMAKI: They basically came up to  
7 me at the information centre, told me they weren't  
8 happy with the first three alternatives and they had a  
9 better answer and, in fact, it turned out that they  
10 did.

11 MR. FREIDIN: Mrs. Koven, we will be  
12 talking about the documentation about those and about  
13 exactly what did happen with those tourist operators.

14 Q. Are you going to need these up, Mr.  
15 Multamaki?

16 MR. MULTAMAKI: A. No.

17 Q. Mr. Multamaki, I know we are going to  
18 deal with the involvement of the tourist operators when  
19 we deal with some of the supplementary documentation,  
20 but could you turn to Book No. 7 of Exhibit 814, page  
21 124. I would like to just deal with that before we get  
22 into the public involvement in a little bit more  
23 detail.

24 MR. FREIDIN: It's at page 124 under Tab  
25 7, it says: Red Lake Crown Management Unit, Access



1 Road Construction, it's re: -- item No. 2 says: Road  
2 No. 24.

3 Q. Now, is that Road No. 24, is that the  
4 Valhalla Road? Mr. Multamaki, is Road No. 24 the  
5 Valhalla Road?

6 MR. MULTAMAKI: A. That's correct, Road  
7 No. 24 is the Valhalla Road.

8 Q. All right. Could you explain what  
9 this particular document is?

10 A. On page 124 you have the first page  
11 of the access road documentation which was in Book No.  
12 7 or the part of the supplementary documentation in the  
13 Red Lake Crown plan. Really what it does is it  
14 contains the documented information on Road No. 24 or  
15 the Valhalla Road for 20-year planning purposes or --  
16 and primary access.

17 Really we are dealing with items 1 to 7  
18 on that page. Basically items 1, 2 and 3 and 4 give  
19 you the specifics on the road, base map number, road  
20 number, road type, being primary, and road length; 5, 6  
21 and 7 identify -- or give the alternative corridors  
22 examined, that is No. 5; No. 6 gives an environmental  
23 analysis for each alternative corridor; and 7 gives the  
24 proposed corridor and justification. Incidentally in 7  
25 we show that -- the last sentence says:

1 "Therefore for both the tourism and  
2 cost/benefit aspect this route is best."

3 In fact that cost/benefit should be  
4 financial analysis. We simply looked at the financial  
5 aspects of building a road in that location.

6 When you look at 5, 6 and 7 there is  
7 relatively little information on this page in there and  
8 a rationale behind that is that a report was prepared  
9 with all of these elements in it and it's been attached  
10 in the same book, Book 7, pages -- starting at page  
11 135.

12 Q. This is a report then that would be  
13 part of the supplementary documentation?

14 A. That's correct. It in fact was  
15 attached to this -- to the road documentation section  
16 for Road No. 24, and you will notice that on page 135  
17 is simply the covering page of the report, the  
18 important items in here.

19 Q. Just before you go through there,  
20 when would that have been prepared in relation to the  
21 information centre?

22 A. This was prepared prior to the second  
23 information centre.

24 Q. And by the second information centre,  
25 what do you mean?

1                   A. Well, it was prepared after Fire 7  
2                   had occurred in May of '86 but prior to the information  
3                   centre in the fall of 1986.

4                   Q. So there was one information centre  
5                   for the plan which we've got before us and this was  
6                   available before that information centre?

7                   A. That's correct.

8                   Q. Or at that information centre?

9                   A. That's correct.

10                  Q. Okay.

11                  A. Just as a point, on page 136, the  
12                  first page of this report, it has a brief section on  
13                  the losses to Fire No. 7 and really gives the rationale  
14                  and what took place and why road access was required  
15                  within this five-year term in the north part of the  
16                  unit, the northwest corner.

17                  Also if you go on to page 138, at the  
18                  bottom of the page it shows the options for access and  
19                  basically describes Option 1; starting at the bottom of  
20                  page 138, Option No. 2; on page 140, about a quarter of  
21                  the way down, Option No. 3; and on page 141 Option No.  
22                  4. And really that discussion or that documentation  
23                  gives the background information required for Sections  
24                  5, 6 and 7 on the documentation sheet and gives the  
25                  analysis and describes the alternatives that were

1 examined.

2 Q. And why was that document prepared?

3 A. That document was prepared as an  
4 exercise in organizing and understanding the  
5 complexities of road access into that area of the  
6 management unit and, more importantly, it was useful  
7 for planning and discussion purposes, particularly with  
8 respect to the planning team and the interest groups  
9 and public.

10 Q. In what way was it useful for those  
11 purposes?

12 A. It was useful in that the road itself  
13 was relatively complex in nature. For example, it was  
14 planned as a 20-year corridor originally; there were  
15 three options originally identified, the fourth had  
16 been identified by the tourist operators; it had then  
17 been accelerated into the five-year program because of  
18 the fire that took place in 1986; there were high  
19 value -- high values in the adjacent area or in the  
20 immediate area for tourism purposes; and there were a  
21 number of alternatives.

22 The end thing is it was the single  
23 largest road access program on the Red Lake Crown  
24 Management Unit at that point in time.

25 Q. Now, was a report of this nature



1 prepared for other areas of the management unit into  
2 which you were contemplating putting primary road  
3 corridors?

4 A. No, there was not.

5 Q. And why not?

6 A. It wasn't felt that it was necessary.

7 Q. Now, you indicated when you were  
8 looking at page 124 that for primary road corridors we  
9 would only go down to Item No. 7.

10 A. That's right.

11 Q. And I understand you will deal with  
12 Items 8 through 10 when we get to the road planning for  
13 the five years in Part No. 11. Can you just tell me  
14 why we do stop at Item No. 7 at this particular point?

15 A. Really Item 7 -- up until Item 7 are  
16 the locationary information, Sections 1, 2, 3 and 4;  
17 and in 5, 6 and 7 are the identification of  
18 alternatives, the environmental analysis of those  
19 alternatives, and the justification for selecting a  
20 preferred alternative, and it really deals with the  
21 20-year aspect primary.

22 Q. Items 8 through 10 deal with...?

23 A. With the five-year aspect and with  
24 the specific area of concern packages.

25 MR. FREIDIN: Mrs. Koven you asked about

1 the public involvement. We have a whole section to  
2 deal with that in Part No. 11 because it was during the  
3 actual planning of the five-year construction that we  
4 have more of the documentation in relation to that.

5 So I think it would be better understood  
6 in the context of the explanation of the five-year  
7 planning for the road. So if it's fine with you, I  
8 would like to just put off that particular matter, but  
9 not avoid it.

10 Q. Mr. Bisschop, when primary -- pardon  
11 me, when a preferred primary road corridor is approved,  
12 what does that mean in practical terms; in other words,  
13 I'm asking: What can you do within the corridor?

14 MR. BISSCHOP: A. The approval of the  
15 one-kilometre corridor for the 20 years means that the  
16 actual location of the road which is determined at the  
17 five-year level would occur within that approved  
18 one-kilometre corridor.

19 We will speak to the entire subject of  
20 how we do the next level of planning when we get into  
21 Part 11 of the document, but essentially what it means  
22 is that the location of the road that will be planned  
23 in detail in the future would fall within the approved  
24 one-kilometre corridor.

25 Q. Now, you plan primary road corridors

1 every five years when you prepare timber management  
2 plans; is that correct?

3 A. That's correct.

4 Q. Now, does approval in a past plan of  
5 a corridor which extends beyond the end of the primary  
6 road actually constructed have any effect on what gets  
7 approved in the next plan either as a five-year road  
8 plan or an extension of your primary?

9 A. Well, first of all, the initial  
10 five-year segment of the corridor is approved -- the  
11 entire corridor is approved, the initial five-year  
12 segment approval means something specific because the  
13 five-year -- the road location for the five years will  
14 be planned in detail within that corridor.

15 The remaining 15 years of the corridor,  
16 if you will, is basically a tentative approval. That  
17 approval of the corridor is up for review again at the  
18 regular scheduled five-year renewal of the timber  
19 management plan and the idea is there you would  
20 re-examine your earlier decision in light of any new  
21 information that may have come forward.

22 Q. In developing the planning process  
23 for primary road corridors, did you consider whether or  
24 not it would be appropriate to say, in effect, that  
25 approval of the 20-year corridor should allow you to

1       construct your primary road within that corridor  
2       regardless of circumstances?

3                   A.   No, we would say that the --

4                   Q.   Did you consider it; did you consider  
5       that as a possibility?

6                   A.   It was considered, but I would  
7       suggest that in the same vein as the move to a planning  
8       system that required preparation of a new plan every  
9       five years to assess new information, the subject of  
10      road -- primary road corridor is assessed within that  
11      context.

12                   We cannot make a decision that will have  
13      a 20-year guarantee to it. New information will come  
14      forward and it's neither in MNR's interest, the  
15      government's interest nor a particular forest company,  
16      where a forest company is involved, to be locked into a  
17      decision for 20 years that's perhaps based on old  
18      information.

19                   The five-year review will address the  
20      question of whether or not there is new information and  
21      basically the five-year review will confirm, if it's  
22      possible, or result in a change to the previously  
23      approved one-kilometre corridor for the 20-year period.

24                   Q.   Could you provide an example of a  
25      situation where new information might lead to a



1 decision not to continue along a previously approved  
2 corridor?

3 A. A couple of examples that come to  
4 mind - and I think the Red Lake plan will immediately  
5 draw this to your attention - is: Assume that a  
6 primary road corridor had been approved to enter into  
7 the area affected by Fire No. 7, obviously you would  
8 not continue to build that road in the previously  
9 approved corridor, you would look at the question of a  
10 new corridor to provide primary access to the areas  
11 that are now eligible as a result of the renewal of the  
12 plan to address the fire.

13 Also there may be new information that  
14 comes forward, for example, about some new resource  
15 development from, for example, some other ministry.  
16 The kind of development that might be dealt with here,  
17 for example, is a development for a new mine proposal.  
18 It would be in the best interests of all primary access  
19 road planning for all resource interests in the area to  
20 coordinate the planning of primary access to serve both  
21 programs' interests.

22 Q. And that would be a situation similar  
23 to what the Chairman indicated about putting a primary  
24 road in a location which may have benefits for other  
25 uses?

1                   A. That's right, that is where that  
2 positive side of the consequences of alternative road  
3 planning would come into play.

4                   Q. Now, Mr. Multamaki, you obviously --  
5 well, are there examples of either of those two  
6 situations that Mr. Bisschop described in your plan?

7                   MR. MULTAMAKI: A. Yes, there are.

8                   Q. And do we need the maps -- and you  
9 think you'll need the maps again to demonstrate this;  
10 is that correct?

11                  A. Yeah, that would certainly be the  
12 easiest way to demonstrate it.

13                  Q. All right. How many maps do we need?

14                  A. We can use two. There is one small  
15 one, and we can use the 1:50,000 scale allocation map.

16                  Q. Do you need them up together or one  
17 at a time?

18                  A. We can put them up one at a time and  
19 follow each.

20                  Q. Okay. What map do we have up there?

21                  A. This is the 1:50,000 scale allocation  
22 map for harvest, renewal and maintenance in the  
23 1986-1991 period.

24                  Q. That hasn't been marked an exhibit  
25 yet, has it?

1 A. No, it doesn't look like it has in  
2 fact.

3 MR. FREIDIN: Could we give that an  
4 exhibit number, Mr. Chairman.

5 THE CHAIRMAN: Exhibit 840.

6 MR. MULTAMAKI: That is the Allocation  
7 Map for Harvest, Renewal and Maintenance Areas, Part A.  
8 ---EXHIBIT NO. 840: Allocation Map for Harvest,  
9 Renewal and Maintenance Areas,  
Part A.

10 MR. FREIDIN: Q. All right. And what  
11 can you demonstrate by way of an example through that  
12 map?

13 MR. MULTAMAKI: A. Okay. On this map  
14 what you see in colours, green and yellow, are the  
15 approved operating areas for harvest purposes. In  
16 black you see here the Pine Ridge Road, that has  
17 already been constructed and in fact is in place.

18 This red line right here delineates where  
19 Fire No. 7 burned all of this area, was destroyed  
20 through Fire 14 -- or sorry, Fire No. 7 in 1986. This  
21 road in fact, the Pine Ridge Road, had been previously  
22 constructed to access future wood allocations in this  
23 area.

24 Q. Indicating to the west?

25 A. Yes, to the west of where the actual

1 allocations are now.

2 As well there was a north and south fork  
3 approved for construction in this area here and down  
4 into this area. Those, because of the impact of Fire  
5 7, were discontinued. There is also three gold mines  
6 in this area.

7 Q. You are indicating an area --

8 A. Just to the east of Pipestone Bay.  
9 Red Lake again is down here, the Red Lake itself, the  
10 lake is all of this.

11 Q. You indicated that there was a  
12 proposed fork off the Pine Ridge Road going to the  
13 south towards those mines?

14 A. That's correct. The south fork of  
15 the Pine Ridge Road would have gone up to the edge of  
16 the patented land down here and in fact provided access  
17 into the mines as well. (indicating)

18 As a result of Fire 7, that was still an  
19 alternative; however, it would have meant continuing  
20 construction of this portion of the Pine Ridge Road and  
21 new construction of the south fork.

22 The other alternatives identified were to  
23 build -- construct a road off of the existing road --  
24 or the proposed road system in this area down through  
25 here and to the mines, and at the same time access



1 these allocations just to the north of Red Lake.

2 (indicating)

3 Incidentally, there were two alternatives  
4 identified here, both of them very similar in nature  
5 except that one of them went just to the south of  
6 Hammel Lake, the other one just to the north of Red  
7 Lake. In fact, there was a mile or two difference  
8 between the two of them.

9 And in fact what took place was that as a  
10 result of Fire 7 we discontinued the Pine Ridge Road --  
11 construction of the Pine Ridge Road and in fact we  
12 selected the alternative in this area called the Jamie  
13 Mine Road, and I have got a larger scale map at  
14 1:50,000 of that -- the two options that were  
15 identified and with the one that was selected.

16 MR. FREIDIN: Can we mark that as the  
17 next exhibit.

18 Q. And how would you describe that?

19 MR. MULTAMAKI: A. That's the Road No.  
20 9, Jamie Mine.

21 THE CHAIRMAN: Exhibit 841.

22 MR. FREIDIN: A. And it's at a -- you  
23 previously indicated it's at a scale of 1:50,000?

24 MR. MULTAMAKI: That's right.

25 MR. CASSIDY: Sorry, what was the name of

1 that?

2 MR. MULTAMAKI: Jamie Mine Road or Road  
3 No. 9.

4 ---EXHIBIT NO. 841: Map depicting Road No. 9, Jamie  
5 Mine Road.

6 MR. FREIDIN: Q. Perhaps you could hold  
7 that up so the Board can see it and explain to the  
8 Board and the other parties can come up and look at it  
9 later.

10 MR. MULTAMAKI: A. What we have here is  
11 we have the two alternatives that were identified after  
12 Fire No. 7 to access the wood allocations in the Hammel  
13 Lake area and the three gold mines in the Pipestone Bay  
14 area, and in fact what took place was we had selected  
15 the red alternative, alternative No. 3, as the  
16 preferred alternative after Fire 7 had hit.

17 Q. And would this map marked Exhibit 841  
18 have been contained in the roads documentation which is  
19 Book 7?

20 A. Yes, it would have, and in fact it  
21 is.

22 Q. And on the allocation map, which is  
23 Exhibit 840, you have in fact identified the location  
24 of the Jamie Mine Road. Am I correct that what you  
25 identified there is in fact the road which was the

1 preferred option and the one which was approved for  
2 construction?

3 A. That's correct.

4 Q. Thank you.

5 MR. FREIDIN: Just a couple of questions  
6 before I conclude this section, Mr. Chairman.

7 Q. Mr. Bisschop, are there any plan  
8 requirements if you want to use a river or a lake as a  
9 means of providing primary access?

10 MR. BISSCHOP: A. There is a new term  
11 and condition -- new draft term and condition, Mr.  
12 Chairman, that addresses that subject. The Class EA  
13 planning process did not address this subject. But  
14 essentially the planning requirements would be the same  
15 as for the 20-year primary access road planning. The  
16 term and condition is draft term and condition No. 16  
17 which is a very short condition and I could read it  
18 into the record.

19 THE CHAIRMAN: Very well.

20 MR. FREIDIN: Q. That's Exhibit 700,  
21 term and condition 16.

22 MR. BISSCHOP: A. The draft condition  
23 reads:

24 "MNR shall amend the timber management  
25 planning process to clarify that whenever

1 a new river/lake drive is proposed for  
2 the purposes of access for timber  
3 management, the proposal shall be  
4 considered in the timber management  
5 planning process as a "primary" access  
6 option and that the planning requirements  
7 for primary access shall apply."

8 Q. And, Mr. Bisschop, are there any  
9 concluding remarks you would like to make before we  
10 move on to part No. 10?

11 A. Yes. I would like to refer to the  
12 last page of Exhibit 837, page D, and for the most part  
13 I will briefly summarize some of the key points of the  
14 evidence we have given.

15 We are looking at primary road corridors  
16 from a long-term general direction planning  
17 perspective. We're of course dealing with main access  
18 system for the management unit.

19 We address other values through the  
20 concept of preliminary areas of concern and build that  
21 into the identification and analysis of options. We  
22 have formal requirements for the consideration and  
23 analysis of alternatives and a requirement to produce a  
24 rationale for the preferred corridor that's selected.

25 There are formal documentation



1 requirements. One which I haven't spoken to yet is the  
2 documentation requirement in the timber management plan  
3 itself and that is very simply that on the eligibility  
4 maps the selected -- the preferred corridor would be  
5 portrayed on the eligibility map, the maps that Mr.  
6 Multamaki in his example referred to, the 1:50,000  
7 eligibility maps. You would want to see the preferred  
8 corridor identified on those maps.

9 There are supplementary documentation  
10 requirements and, finally, the entire subject of  
11 primary access roads and then long-term directional  
12 planning of primary roads is reviewed every five years  
13 and the previously approved corridor is either  
14 confirmed or changed based on any new information that  
15 might come into play at that regular five-year  
16 scheduled renewal of the plan.

17 Q. Could you give me some idea of what  
18 the supplementary documentation requirements are in  
19 relation to primary road corridors?

20 A. Again, a written documentation of the  
21 four components of the analysis I referred to; the  
22 effectiveness of access, how well concerns have been  
23 accommodated, estimated costs, and the subject of use  
24 management.

25 You'd expect to see a documentation of

1       that for each alternative. You'd expect to see  
2       documentation of public comments that might have been  
3       brought forward through public consultation,  
4       particularly at the information centre time, and the  
5       rationale for the decision would be documented. For  
6       each primary road we are dealing with in a timber  
7       management plan you would expect to see that package of  
8       documentation, not unlike what Mr. Multamaki referred  
9       to in his example.

10                   MR. FREIDIN: Thank you. Are we going to  
11       take an afternoon break, Mr. Chairman?

12                   THE CHAIRMAN: Very well. 20 minutes.

13       ---Recess taken at 2:50 p.m.

14       ---On resuming at 3:30 p.m.

15                   THE CHAIRMAN: Thank you. Be seated,  
16       please.

17                   MR. FREIDIN: Okay. If we could then  
18       move on to Document No. 2, Part No. 10, entitled:  
19       Selection of Areas for Operations, that is -- the  
20       section commences at page 168 of Exhibit 813A. The  
21       witnesses that will be speaking to this are Mr.  
22       Kennedy, Mr. Multamaki, and I think that's it.

23                   By way of an introductory remark, Mr.  
24       Chairman, Document No. 10 is one which builds on Panels  
25       3 and 4 and, as a result, we do not intend to go into a

1 great amount of detail in the evidence about that area.  
2 We will, however, be asking Mr. Multamaki to  
3 demonstrate the product through maps, et cetera.

4 The subject matters in Sections 10 and 11  
5 take place in an iterative process and if there's any  
6 two sections which it's difficult to talk about  
7 separately it is probably 10 and 11, but we have no  
8 choice, in my view, but to separate them for ease of  
9 understanding. But, in any event, I just wanted to  
10 make the point that the two subject matters are very  
11 interconnected.

12 I think Mr. Kennedy would like to begin  
13 by giving an outline of this particular part of  
14 Document No. 2. And we have a hand-out, it's one page,  
15 it is entitled: Selection of Areas for Operations. I  
16 would ask that it be marked as the next exhibit.

17 THE CHAIRMAN: Exhibit 842.

18 MR. FREIDIN: And it is a copy of an  
19 overhead which I will put up now. (handed)

20 THE CHAIRMAN: Thank you.

21 ---EXHIBIT NO. 842: Hard copy of overhead entitled:  
22 Selection of Areas for Operations.

23 MR. FREIDIN: Q. Okay, Mr. Kennedy.

24 MR. KENNEDY: A. Thank you, Mr. Freidin.

25 Mr. Freidin indicated that both parts 10 and 11 were

1 inter-related and in many cases difficult to separate.  
2 Part 10 of Document 2, Selection of Areas For  
3 Operations; Part 11 is the determination of the  
4 operations that will occur.

5 I should also indicate at the outset that  
6 the selection of areas for operations, our evidence  
7 will be broken into two portions, that that deals with  
8 the harvest operations and a separate section that  
9 deals with the renewal and tending operations.

10 There is a certain amount of similarity  
11 between this part of the evidence that we're going to  
12 be speaking about, the selection, with the eligibility  
13 that we discussed earlier just prior to the roads  
14 discussion. That similarity is seen in the fact that  
15 there are criteria that are developed and there are  
16 maps that are developed.

17 Right at the outset here I would like to  
18 point out what the differences are. The two major  
19 differences are the time frame that we are dealing with  
20 and; that is, in the case of eligibility it was 20  
21 years, now in the case of our discussion on selection  
22 it is a five-year time frame that we are dealing with.

23 The second major difference is that  
24 eligibility is dealing with where operations might  
25 occur and with our discussion on selection we are



1 discussing operations -- where operations will occur  
2 during that five-year term.

3 THE CHAIRMAN: Is it true, Mr. Kennedy,  
4 that where operations will occur within a five-year  
5 period can be anywhere within the five-year period and  
6 that would be determined by an annual work schedule?

7 MR. KENNEDY: That's correct. In the  
8 timber management plan there is not a requirement to  
9 outline where operations will occur on an annual basis.  
10 It is left up to the annual work schedule which simply  
11 schedules the operations once they've been planned and  
12 that will be the subject matter of Document No. 5 that  
13 we will be discussing with Mr. Groves tomorrow.

14 MR. FREIDIN: You are optimistic.

15 MR. KENNEDY: Yes, I am.

16 THE CHAIRMAN: Hopefully realistic.

17 MR. KENNEDY: So by way of introduction,  
18 this overhead is intended to convey a number of these  
19 messages we have here that the selection of areas for  
20 operations deals with where operations will occur for  
21 the next five years, that the area is selected from  
22 those that have previously been shown as eligible for  
23 operations and, in all cases, the selected area is less  
24 than that that is eligible and indicate that, as we  
25 have discussed scheduled renewals to plans, this

1 selection process is repeated each time a timber  
2 management plan is renewed.

3 The amount of the area that is selected  
4 is guided by the results of the MAD calculation. This  
5 pertains particularly to harvest but has a relationship  
6 to the renewal and tending. As is obvious, once the  
7 area has been harvested, we enter into the renewal  
8 stage and, as I mentioned, the set of selection  
9 criteria and a map is used to portray the areas that  
10 are selected for operations.

11 MR. FREIDIN: Q. Now, in relation to  
12 harvest -- the activity of harvest, could you explain  
13 what the selection of areas for harvest means and also  
14 describe when it's done and how it's done?

15 MR. KENNEDY: A. Yes. This particular  
16 part of the evidence has not been discussed previously  
17 in Panels 3 and 4, so I feel it's important to go into  
18 some detail on this portion.

19 And I would like to refer people to page  
20 349 of the Class EA which is Exhibit 4. Perhaps I  
21 should start with a reference to 138 which is where the  
22 discussion of the selection for areas for harvest  
23 begins, but on page 139, starting at line 26, we have  
24 an indication of the kind of subject matters that are  
25 considered when a forester is putting together the

1 selection criteria.

2 So in a fashion similar to that that was  
3 done with the eligibility criteria, there are a number  
4 of subjects that are looked at. You will see there is  
5 some similarities again to those subjects. Industrial  
6 requirements, the maturity age of the trees, the level  
7 of investment required to conduct the operation,  
8 previous commitments to harvest areas during previous  
9 term, operability of an area based on physical,  
10 topographical, economic constraints, and the need to  
11 harvest areas to meet particular management objectives  
12 are all subject matters that the forester is  
13 considering when they are developing a particular set  
14 of selection criteria to be used during that five-year  
15 term.

16 Q. And I note from page 138 that those  
17 selection criteria are developed for each working group  
18 or forest unit?

19 A. That's correct. They're set out to  
20 cover the amount of area that will be selected within  
21 each forest unit.

22 I would like now to describe how the  
23 selection process occurs and a number of the integral  
24 parts along the way. Once the criteria has been  
25 stated - and incidentally that is documented in the

1 timber management plan - the forester then goes to an  
2 eligibility map and chooses or selects stands from  
3 there which meet the stated criteria. The stands are  
4 selected primarily to meet the timber purposes and, as  
5 such, the forest conditions that are there would affect  
6 the pattern of the stands that are selected.

7 So the various species that are needed by  
8 industrial users would influence which stands would be  
9 selected, the topography and age of trees would also  
10 have a direct bearing.

11 Mr. Martel was indicating earlier that  
12 there is a desire often to select stands all in one  
13 area, and certainly from an economic point of view that  
14 is something that is forefront in the forester's mind  
15 when they are selecting stands to try and group stands  
16 in a fashion that allows for operations to proceed in  
17 an economical fashion.

18 However, there are other influences which  
19 a forester is cognizant of when looking at selecting  
20 stands. For example, if natural regeneration was being  
21 considered the source and location of a seed source may  
22 cause some stands or parts of stands not to be selected  
23 and provide a breakup of a large block which might  
24 otherwise result.

25 Another example would be -- of an



1 influence that could affect which stands are selected  
2 would be the recognition of such things as the  
3 direction contained within Moose Habitat Guidelines  
4 where a forester would -- knowing the content of the  
5 guidelines, would consciously not select some stands in  
6 order to break up the cut, if I can use that  
7 expression, to provide some dispersal to the cut  
8 recognizing the desire to have general moose habitat in  
9 that area.

10 So it's through the selection process  
11 there is an opportunity for the forester to bring  
12 together the stands that are of similar characteristics  
13 that meet the selection criteria that have been stated,  
14 as well as give recognition to other values. The  
15 selection of these stands continues and a forester  
16 keeps a listing of the stands that are being selected;  
17 a running total, if you will. An accumulation of those  
18 stand areas is kept and compared to the MAD level.

19 And perhaps the easiest way of -- excuse  
20 me. Perhaps the easiest way to think of it is that the  
21 forester is selecting stands, adding the area of each  
22 of those individual forest stands that are shown on the  
23 eligibility map up until the MAD level area has been  
24 reached. While preparing that summary of the stands  
25 selected there is a second way in which this

1 information is communicated to people and that is on a  
2 map.

3 The selection map is then prepared using  
4 that stand listing or, in fact, perhaps a second map is  
5 used during the look at the eligibility map and  
6 additional stands are identified. The result being  
7 that there is a stand listing and a map which indicates  
8 those areas that have been selected for operations for  
9 the five-year term.

10 I should advise that the word allocation  
11 which you will see in the Timber Management Planning  
12 Manual, Exhibit 7, is synonymous with the word  
13 selection in this discussion. So if you would hear a  
14 forester talk of allocating stands they are in fact  
15 discussing the selection of stands.

16 Q. And that would apply to Mr. Multamaki  
17 when he refers to the allocation map?

18 A. Yes, it will refer to the terms that  
19 Mr. Multamaki uses and has used to describe the maps  
20 that he has in conjunction with the Red Lake plan, as  
21 well as the words that will be seen in Exhibit 7, the  
22 Timber Management Planning Manual.

23 I should make one clarification right  
24 here though, in that what I have indicated is that the  
25 stands are selected for operations and that the

1 operations will occur during the next five years.  
2 Technically that is not quite right yet, it is a  
3 proposal at this stage and the reason I am stressing  
4 this is that there are some additional planning  
5 requirements that must be dealt with and; that is, the  
6 recognition of other values and the area of concern  
7 planning process which we will be discussing in  
8 relation to Document No. 2 will be discussed in Section  
9 11 which will follow which will be a discussion of the  
10 determination of operations. But the manner in which  
11 that part of the process begins is with a proposal to  
12 harvest in an area.

13 Q. Is there any requirement that the  
14 selection criteria be discussed in the timber  
15 management plan? You have referred to stand listings,  
16 you have referred to maps, is there any other  
17 documentation requirement?

18 A. Yes. Most often there is a  
19 discussion of the criteria and the resultant maps that  
20 are discussed in the timber management planning --  
21 sorry, in the timber management plan, both in text form  
22 and in the manner in that stand listings are appended  
23 to the plan. So, once again, it's possible for an  
24 individual to come into the exercise and retrace the  
25 steps that the forester has undertaken.

1                   There are several locations in the Timber  
2                   Management Planning Manual where the results of the  
3                   selection exercise are summarized and are entered into  
4                   various tables, and we will be discussing those in  
5                   detail -- in some detail in a moment for two tables and  
6                   in a separate section which will be Part 12 of this  
7                   document at a later point in the evidence.

8                   Q. Now, Mr. Multamaki, I think we have  
9                   already marked one of your allocation maps as an  
10                  exhibit. Were selection criteria identified for each  
11                  of the working groups or forest units identified in  
12                  your plan?

13                  MR. MULTAMAKI: A. Yes, there were. If  
14                  I could direct the Board's attention to page 94 of  
15                  Exhibit 814, Book 1. That should be page 94.

16                  Q. Okay.

17                  A. On page 94 you will notice there are  
18                  five points or five selection criteria for the  
19                  five-year term. Point No. 1 simply points out that  
20                  stands will be allocated or selected on an oldest first  
21                  principle; point 2 is -- makes the point or gives  
22                  direction that stands must have the potential for road  
23                  access during that five-year period, in other words, we  
24                  are not looking at selecting stands that are beyond the  
25                  ability of industry to access during this five-year



1 period.

2 Point 3 basically states that we would  
3 match allocations or select stands based on guidelines,  
4 location with respect to summer, winter and so on,  
5 potential harvest method - and here we mean modified  
6 techniques for silvicultural purposes - in other words,  
7 we would match -- look at matching the block locations  
8 and sizes to meet industry's need as well as meet other  
9 guidelines and so on.

10 Point No. 4 indicates that a high  
11 priority will be given for allocating stands that are  
12 either damaged or starting to deteriorate and the point  
13 was made here that these factors were generally  
14 identified through the OPC program, or the operational  
15 cruising program.

16 Component 5 or criteria 5 is that we  
17 would select stands that demonstrated high risk  
18 characteristics for either spruce or jack pine budworm.

19 Q. Now, Mr. Multamaki, before we go to  
20 the maps could you just provide an example of the  
21 criteria No. 3 where you might have a situation where  
22 you would match the choice or the selection of a stand  
23 for silvicultural purposes but also in a way which it  
24 would meet other use guidelines?

25 A. Certainly. There's examples where we

1 would select a stand of lowland black spruce in the  
2 middle of perhaps a larger block of timber and by  
3 applying modified harvesting techniques in that stand  
4 we would also be addressing other use concerns for  
5 things like early or late winter moose habitat and. In  
6 fact, we would essentially be breaking up the size of  
7 that block or the harvest cut pattern within that block  
8 to meet the needs of moose within the area.

9 Q. And when you refer to modified  
10 harvest techniques, in that sense what type of  
11 technique are you referring to?

12 A. We're talking about strips or  
13 blocks--

14 Q. Thank you.

15 A. --strip cutting or block cutting.  
16 Usually 50 per cent.

17 Q. Now, you have an allocation map and  
18 are you -- could you, through reference to your  
19 allocation map, indicate how the result of applying  
20 your selection criteria gets depicted on a map?

21 A. Yes. The best way of dealing with  
22 this again is to go to the maps and, once again, we  
23 will be referring back to the eligibility map to  
24 demonstrate how this selection process took place.

25 Q. Do you need the two up at the same

1 time?

2 A. Yes.

3 Q. You want two up?

4 A. I'll use three.

5 Q. Mr. Multamaki, you have three maps up  
6 and you have Exhibit 834 which is an eligibility map,  
7 you have 840 which is an allocation map which was  
8 marked, and you have another map. And can you describe  
9 what that map is?

10 A. Yes. The map on my far left is in  
11 fact a 1:15,840 scale roads and allocation map and that  
12 is the five-year map.

13 Q. And is that designated as Block A or  
14 Block B?

15 A. No. It's a base map and the base map  
16 number on that is 513934.

17 THE CHAIRMAN: Exhibit 843.

18 ---EXHIBIT NO. 843: Roads and Allocation Map, Base map  
19 No. 513934 at a scale of 1:15,840.

20 THE CHAIRMAN: What did you end up  
21 calling that, Mr. Multamaki?

22 MR. FREIDIN: Do you want this moved  
23 somehow, Mrs. Koven?

24 MRS. KOVEN: No, I am all right.

25 MR. MULTAMAKI: That is the 1:15,840

1 scale allocation map.

2 Now, the easiest way to demonstrate this  
3 is to indicate that we have already seen the  
4 eligibility map here on my immediate right. As you  
5 notice, the area that we are going to demonstrate this  
6 in is the Little Vermilion Lake area again, it's just  
7 to the east in this area right here (indicating) and,  
8 in fact, the 1:15,840 scale map on my far right is this  
9 base map right here at the top and encompasses the top  
10 square that you see coloured here.

11 On the eligibility map we have obviously  
12 identified those areas that are eligible for selection  
13 during the 20-year period of this plan. Initially when  
14 I looked at this there were the three obvious areas  
15 that contained the overmature wood or the wood that was  
16 available for allocation. When you look at the centre  
17 map in fact the selection that occurred generally was  
18 from within those areas that are shown on the  
19 eligibility map. For example, these two maps, the  
20 centre map and the map on my immediate right, are  
21 exactly the same scale.

22 MR. FREIDIN: Q. Exhibit 840 and 834

23 MR. MULTAMAKI: A. That's right, 834 and  
24 840. And they are at exactly the same scale, they are  
25 in fact the same map with two levels of information,



1 eligibility and final selection.

2 If you look at, for instance, the bottom  
3 section of that map and we were to overlay it over the  
4 eligibility map you would find in fact those blocks  
5 occur on the eligibility map and in fact have been  
6 selected from the four operations on the middle map.

7 Q. And selection -- the areas on Exhibit  
8 840 that were selected are the areas where you plan to  
9 have operations within the five years 1986-1991?

10 A. That's correct. They have been  
11 selected for harvest and renewal and maintenance. The  
12 colour code again is exactly the same on all three  
13 maps: yellow for spruce, green for jack pine. This  
14 allows you to move between the three levels of map with  
15 a common factor in the colour code alone.

16 As well, that centre map shows the areas  
17 that have been selected for renewal and maintenance  
18 operations and we will get to that as Part B or the  
19 second part of this evidence.

20 Just as a comment, the map over here on  
21 my far right, Exhibit 849 -- sorry, 843 is in fact what  
22 we call the working maps or the 1:15,840 scale base  
23 maps. That is where a lot of the actual detail of the  
24 stands that are selected get placed or get recorded.

25 For example, this map contains things

1 like stand boundaries, it contains a brief description  
2 of the areas of concern and the operations that may or  
3 are allowed to take place in there. It also contains  
4 the information on the blocks themselves, road  
5 corridors and so on. And in fact the legend on the  
6 immediate left or bottom left-hand corner of that map  
7 describes each of are allocations that are there. As  
8 well, it also contains a minimal amount of specific  
9 area of concern information.

10 For example, in the centre of this map  
11 which is --

12 Q. What are you looking at Exhibit 843?

13 A. 843, right. You see that that is  
14 Little Vermilion Lake, the clear white area. The  
15 Sportsman Lodge in fact is the main base lodge of the  
16 tourist operator that we were discussing in the  
17 previous section and in fact the individual that  
18 identified this northern route, Valhalla or the  
19 Valhalla option.

20 Q. And the Valhalla option you are  
21 referring to is a road corridor which is--

22 A. It's shown in blue.

23 Q. --off Exhibit 843.

24 A. That's right, it's shown in blue on  
25 Exhibit 843. Also there is a minimal -- there is a

1 certain amount of information with respect to eagles'  
2 nests, heron rookeries and so on. In fact on this base  
3 map you can see that there are two yellow diamonds, one  
4 located here on the east shore of Little Vermilion Lake  
5 one on the west shore down here that are in fact  
6 eagles' nests. (indicating)

7 Q. This map also has an indication that  
8 it shows the location of heron rookeries?

9 A. That's correct, there isn't in fact  
10 any heron rookeries on that particular base map but had  
11 there been it would have shown.

12 Q. And I understand that the legend for  
13 Exhibit 840, which is the allocation map for harvest,  
14 renewal and tending, does have the same designation.  
15 And does that show the location of any heron rookeries?

16 A. Once again it does -- it does show  
17 that there is the -- or in the legend that there are  
18 markers for both eagles' nests and heron rookeries. We  
19 show eagles' nests, in fact four of them, on the  
20 Chukuni River system in the Little Vermilion Lake --  
21 sorry, five of them on that lake system, those are  
22 eagles.

23 There is not or there was not at the  
24 point in time that this map was prepared any identified  
25 heron rookeries, however, there was after this plan was

1 prepared a heron rookery identified in this general  
2 area right here (indicating) to the south of Little  
3 Vermilion Lake and in fact that is discussed in one of  
4 the amendments to the plan.

5 Q. All right. Could you speak to how  
6 these maps depict the areas which have been selected  
7 for renewal and tending? We are going to put these  
8 down and speak about some text, and I think we can  
9 probably deal with that subject now so you don't have  
10 to put them back up.

11 A. Okay. Once again what you've seen on  
12 the eligibility map is not only eligible -- the stands  
13 that are eligible for harvest but those areas that are  
14 eligible for renewal and maintenance.

15 As a brief recap, all of the areas  
16 identified here for harvest are also eligible for  
17 renewal and maintenance. The areas outlined in green  
18 including Fire 7 are also eligible for renewal and  
19 maintenance or renewal and tending.

20 When you translate that on to the middle  
21 map or the 1:50,000 scale allocation map, it is  
22 shown -- the areas that have been selected for harvest  
23 coloured in green and yellow are also eligible for --  
24 or selected for renewal and maintenance operations and  
25 they have -- and, as well, the green outlined areas



1       that you see, the very specific blocks with the letters  
2       have been selected for renewal operations alone.

3               This map unfortunately doesn't have a  
4       green outline for straight renewal operations, however,  
5       on some of the other base maps you would see a simple  
6       green line with a white area in the centre which would  
7       denote that that area has been selected for renewal  
8       operations.

9               Q.   Now, in Exhibit 843 you have some  
10      boxes -- I guess bar charts with certain letters in  
11      them indicating that they relate to certain identified  
12      areas of stands?

13              A.   Yes.   Those bar graphs that you see  
14      on Exhibit 843.   There is two types, there is one type  
15      which is in white and orange which give the area of  
16      concerns prescriptions, and basically it's a code  
17      scheme that is shown in the legend as being for  
18      harvest, what is approved for harvest, what is approved  
19      for site preparation -- sorry, it's what is our best --  
20      -- or, sorry, yeah, it's approved for harvest, approved  
21      for site preparation, approved for regeneration and  
22      approved for maintenance or tending operations.   That  
23      is the area of concern ones in orange.

24              The black outlined ones are in fact for  
25      the harvest blocks, the green and yellow coloured

1 blocks. They give the first alternative from the  
2 silvicultural ground rules in method of harvest, method  
3 of site prep, method of regeneration, and method of  
4 tending or maintenance and, in fact, on the green  
5 renewal areas the same thing occurs except that it  
6 would not show our primary option for harvest, it  
7 simply shows site prep, renewal and maintenance or  
8 tending.

9 Q. And all three of these maps will they  
10 be available at public information centres?

11 A. Yes, all three of these maps were  
12 available at the public information centre.

13 Q. Would they be available for review by  
14 the public if they came into the district office?

15 A. Yes, they would.

16 Q. Would there be someone available to  
17 explain it to them if they came into the district  
18 office and wanted to ask some questions about them?

19 A. Yes, there would be somebody there  
20 that could explain them.

21 Q. Thank you. Now, just dealing with  
22 the activity of harvest, Mr. Multamaki, how did you go  
23 about identifying or selecting the stands that were  
24 actually shown on that map as being the areas selected  
25 for harvest?

1                   A. The first point is, is that those  
2       areas that were selected for harvest, of course the  
3       amount of area or the level selected was indicated to  
4       myself by the MAD calculation, we discussed that in one  
5       of the previous sections, and the MAD calculation  
6       basically gave me an indication of how many hectares  
7       could be selected for harvest during the five-year  
8       period.

9                   To actually find the areas or identify  
10      them geographically by stand -- by stand number and so  
11      on, there was a variety of information that was used.  
12      Key piece of information was operational cruising  
13      information. We did special helicopter surveys. I  
14      think we have discussed that previously, that is the  
15      wood identification sheet that was discussed. A number  
16      of areas were done -- identified through field  
17      inspections. There was photointerpretation work and  
18      certainly the FRI maps and map work itself was another  
19      key piece of information.

20                  As well, this links back to the  
21      objectives and strategies with -- particularly with  
22      respect to the saw log situations and I keep referring  
23      back to that because it was the key event on the Red  
24      Lake Crown. And, again, I won't go back to these  
25      sections of the plan, but it was linked to the product

1 objective given in 4.8.5 on page 32 and with the  
2 subsequent strategy -- product strategy in Section  
3 4.9.5 and in fact we discussed how these saw logs were  
4 identified in Section 3 of this lead evidence.

5 Q. That would be Part 3 of Document 2  
6 dealing with the assembly--

7 A. That's correct.

8 Q. --and analysis of background  
9 information?

10 A. Yes, Part 3 of Document 2.

11 Q. Now, was this selection sort of just  
12 a one-time exercise; you sat down once and did it?

13 A. No, it was an ongoing process  
14 throughout the planning period or the assembly or  
15 development of the plan. What takes place is that the  
16 unit forester and the planning team are constantly  
17 looking at the selection of areas either looking at  
18 background information such as OPC, such as field  
19 inspections and so on, adjusting the areas being  
20 selected, you know, adding stands, depleting stands,  
21 and so on, or discarding stands and so on, and there is  
22 a constant monitoring, I guess you would call it, by  
23 the unit forester, myself in this case, as to the  
24 volume area and quality relationship -- quality on the  
25 Red Lake Crown being saw log compositions or whatever



1       within those stands. And this again goes back to  
2       ensuring that the demand by product by volume and by  
3       total area can in fact be met.

4                   Q. Now, Mr. Kennedy, there has been a  
5       reference to situations where the amount of timber  
6       available to be harvested in a five-year period is  
7       actually surplus to demand. There has also been some  
8       evidence that in some cases the opposite is true, that  
9       there is a demand for certain species or working group  
10      which is -- cannot be met from the unit and there is a  
11      deficit. Is that determination detailed or documented  
12      in the plan in any way if that situation occurs or  
13      either of those situations occur?

14                  MR. KENNEDY: A. Yes, it is documented  
15      in the plan and --

16                  MR. FREIDIN: Just one moment.

17                  THE CHAIRMAN: Excuse me a moment.

18      ---Discussion off the record

19                  THE CHAIRMAN: Mr. Freidin, I was just  
20      reminded, because I forgot already, that this room  
21      evidently has to be vacated tonight at five.

22                  MR. FREIDIN: Actually when I gave you  
23      the message I thought today was Monday.

24                  THE CHAIRMAN: That's right, so did I and  
25      I was thinking of it for tomorrow, but evidently this

1 room is booked for some politicians I believe after us,  
2 and we weren't advised before now, but in view of the  
3 fact that we started at 8:30 that will probably make a  
4 reasonably long day in any event. So if we could  
5 vacate by a quarter to five that would be fine.

6 MR. FREIDIN: Okay.

7 THE CHAIRMAN: Thank you.

8 MR. FREIDIN: Q. Okay. Mr. Kennedy, I  
9 think you were going to address the subject through the  
10 documentation of situations which might occur on the  
11 unit where there is a surplus or a deficit identified?

12 MR. KENNEDY: A. Yes. I think perhaps  
13 one of the best ways of doing that is to provide a  
14 vivid introduction to it and ask people to turn to page  
15 79 of their Timber Management Planning Manual, Exhibit  
16 7 and to examine Table 4.15.

17 THE CHAIRMAN: Sorry, what page is that  
18 again?

19 MR. KENNEDY: That is page 79 of Exhibit  
20 7.

21 MR. FREIDIN: There is probably no number  
22 on that page. It's Table 4.15.

23 MR. KENNEDY: That's correct.

24 THE CHAIRMAN: All right.

25 MR. KENNEDY: We are actually going to be

1 going to Table 4.16 to discuss this topic, but I would  
2 like to start through here and indicate that the next  
3 series of tables that are presented in the timber  
4 management plan deal with the results of the selection  
5 process.

6 The manner in which we have pulled the  
7 evidence together and are in the process of presenting  
8 it, separates out various parts of the topic. As a  
9 result it's difficult to talk to any one of these  
10 tables until we have completed the entire evidence in  
11 relation to Document 2, preparing the plan.

12 However, on Table 4.15 the column which  
13 is three from the right-hand side titled: total, it's  
14 under depletion area, that total which is shown in that  
15 column represents the sum of these stands that have  
16 been selected. You will note on the left-hand side of  
17 that table that the table would be completed by a  
18 forest unit. So the results of a selection process  
19 would be shown there in total.

20 Now, if I could turn you to page 83 in  
21 the same exhibit, which is also unnumbered but is Table  
22 4.16, the Forecast Disposition of Maximum Allowable  
23 Depletion Area, we visited this table in earlier  
24 evidence but I would like to indicate that the first  
25 two rows on this table; that is row one which is

1       titled: MAD, is recording the area that is resulting  
2       from the MAD calculation by forest unit in the first  
3       row. The second row which is titled: Allocated Area  
4       is, again, the total area that has been selected  
5       through the selection process and is recorded on this  
6       table.

7                   THE CHAIRMAN: That will always be less  
8       than the MAD; right?

9                   MR. KENNEDY: Not always. There are  
10       situations where it may equal, where it may be less or  
11       indeed it may be more and we will be discussing some of  
12       those.

13                  MR. FREIDIN: Q. And when we are talking  
14       about being less, equal to or greater than that, it  
15       would be the MAD for the five-year period?

16                  MR. KENNEDY: A. That is correct. All  
17       the -- this particular table and the other series of  
18       tables we have been discussing are shown for the  
19       five-year term in the timber management plan.

20                  Now, as I just indicated also, that it's  
21       difficult to talk of these tables until we are through  
22       the entire process -- sorry, process being the  
23       description of how a timber management plan is  
24       prepared. I believe there has been sufficient evidence  
25       to date to allow individuals to realize that reserve



1       prescriptions do result through the area of concern  
2       planning process. We will be discussing those in  
3       conjunction with Part 10. The results of those  
4       prescriptions are shown in this table in the third line  
5       which is titled: Reserves.

6               The area then that is shown in line 4 is  
7       simply a subtraction of the reserve line from those  
8       areas that have been selected or allocated for harvest.  
9       The new total then becomes an area that we term  
10      available for harvest. Now, last week during my simple  
11      explanation of this table I don't believe I went into  
12      any details as to the origin of the area available for  
13      harvest, so that provides a simple explanation of that.

14             It is from that area that is available  
15      for harvest that individuals, licensees and the Crown  
16      are looking at what the market conditions are and  
17      determining which portions of that area can be  
18      harvested at this time and the products marketed. When  
19      that determination is made areas are further refined  
20      for harvest during that five-year term and that area is  
21      determined -- or is titled: Planned Harvest. There is  
22      extra space on this particular table under row 5 in  
23      order to list the various licensees which may be  
24      involved in that particular harvest program.

25             The bottom of the table then, rows 6 and

1 7, deal with the situations of having a surplus or  
2 deficit. In row 6, the title being Estimated  
3 Surplus/Deficit, the 1, 3 and 5 that are in brackets  
4 are intended to indicate a mathematical calculation  
5 where 1 is the MAD, 3 being reserves, and 5 being the  
6 planned harvest, and it's meant to imply that the MAD  
7 level minus the area that is in reserves minus the  
8 planned harvest level will result in a positive or  
9 negative number; the positive number being surplus, the  
10 deficit being a negative number. It is in this fashion  
11 that the origin of the surplus or deficit is determined  
12 in the plan and there has been earlier evidence as to  
13 what ensues next when that situation is encountered,  
14 evidence given by Mr. Armson I believe in conjunction  
15 with Panel 4.

16 What I would like to do is to continue  
17 going through a number of other tables.

18 MR. FREIDIN: Q. If I could just stop  
19 you before you go to the next table. In relation to  
20 Item No. 5, planned harvest area, you indicated that  
21 that is the area that the Crown or the industry would  
22 decide - and you used the words can be harvested and  
23 marketed - in that context, when you say can be  
24 harvested, do you mean that is an area which there is a  
25 demand to be harvested and, therefore, can be harvested

1 and marketed?

2 MR. KENNEDY: A. Yes, I meant in that  
3 case that both conditions would exist, that there -- if  
4 there was a market available and that -- and, yes, it  
5 would be harvested.

6 Q. Thank you.

7 A. Mr. Chairman, Mr. Armson also gave  
8 some evidence in relation to the volume aspect of  
9 surplus and deficit and I think what I would like to do  
10 at this point is just to indicate that the ensuing  
11 Tables 4.16, 4.18.1 and 4.18.2 deal with the volume  
12 aspects in relation to the area that is planned for  
13 harvest as well as the total area that is available for  
14 harvest.

15 And I don't suggest that -- or I suggest  
16 there is not a need to go into the details of those  
17 tables, with perhaps the exception being to mention  
18 that on Table 4.18.1 which is seen on page 7 -- excuse  
19 me, 89 of Exhibit 7, that at the bottom of that table  
20 there is another reference to the word surplus. It is  
21 on this table that the surplus volume is determined.

22 The reason I am stressing that is that it  
23 is possible to have a species volume which is surplus  
24 to the needs. An example of that might be in a  
25 situation where a forest stand is being contemplated

1 for harvest that is in the jack pine forest unit which  
2 has a 10 per cent poplar component. If in that  
3 situation there is no market for the poplar component,  
4 the poplar volume remains surplus to the user's needs  
5 and is recorded as such in this particular table.

6 So surplus and deficit can originate in  
7 two forms both in an area and in a volume sense.

8 Q. When you indicated that Mr. Armson  
9 had spoken to what could occur if there was a  
10 deficit -- surplus or deficit, were you referring to  
11 his evidence in Panel 3 primarily in relation to  
12 woodflow?

13 A. Yes, I was. I am not sure if it was  
14 in Panel 3 or Panel 4.

15 Q. All right. If a surplus area is  
16 identified, is planning done on the area?

17 A. Yes, it is common to do planning on  
18 the area although it may not occur at the outset of the  
19 timber management plan. By the very nature of the  
20 term, that if the area has been referred to as being  
21 surplus, it is anticipated that there is no need for it  
22 and there is a -- there can be a lower level of  
23 planning that occurs or no planning occur on that  
24 particular area.

25 It is usual that the areas are shown on



1 maps and that individuals are made aware of it through  
2 the planning process and what is I think important to  
3 bring out here is that full planning must occur at some  
4 time prior to any operations occurring. If there is a  
5 slim chance that operations might be proposed then the  
6 planning occurs at the time of the preparation of the  
7 timber management plan.

8 If there is a situation where there is  
9 little likelihood of operations being proposed for an  
10 area, then the planning activity may be -- sorry,  
11 planning aspects may be left to a future date when a  
12 market does arise and a demand develops and, at that  
13 time, an amendment to the timber management plan would  
14 have to be contemplated in order to allow for the  
15 operations to become reviewed and eventually approved  
16 prior to them being implemented.

17 Q. Do situations ever arise where a  
18 surplus is identified and a conscious decision is made  
19 by the forest manager that that area will not be  
20 licensed but will -- to others but will be retained?

21 A. Yes. It is possible to, if you will,  
22 hold on to a surplus area and not make it available to  
23 other licensees or other users. An example of that  
24 might -- or would be a hypothetical situation being  
25 that as a result of the maximum allowable depletion

1 calculations, on some management units due to the  
2 age-class structure it may be possible to predict that  
3 a shortage in wood may occur at a particular period in  
4 time. The areas that will be declared surplus today  
5 for the next five-year term may be viewed as one way of  
6 bridging the gap, if you will, of providing additional  
7 woodflow at some point in the future.

8 And this is again, I believe, an element  
9 of the evidence given by Mr. Armson in that, in  
10 situations like that, it was common and good sense that  
11 the areas be held in reserve in the sense of being kept  
12 for that particular set of mill users in anticipation  
13 of that shortage in the future.

14 Q. Thank you. Now, Mr. Multamaki, could  
15 you turn to page 85 of the Timber Management Planning  
16 Manual, and if I can direct your attention to the  
17 section at the top of the page entitled: Wood  
18 Utilization, more particularly the middle of the fourth  
19 line, it states:

20 "The text must discuss the database and  
21 methodology used to determine first the  
22 volume available from the allocated area  
23 and, second, the forecast utilization by  
24 consumer."

25 And was that a requirement at the time

1       that you prepared your timber management plan?

2                   MR. MULTAMAKI:  A.  Yes, it was.

3                   Q.  Was that subject addressed by you in  
4       your plan?

5                   A.  Yes, it was.  In fact it was  
6       addressed in Appendix E of Book 1 of the Red Lake Crown  
7       Management Unit.

8                   Q.  Now, is this --

9                   A.  This has not been copied in the  
10      excerpts or the witness statement; however, I will  
11      briefly read the first paragraph there from Appendix E  
12      that discusses this.

13                  MR. FREIDIN:  Mr. Chairman, I believe  
14      that the appendix was made an exhibit in Panel No. 7.  
15      I will undertake to check the list of exhibits and, if  
16      I am correct, provide the Board with the number of that  
17      exhibit.

18                  THE CHAIRMAN:  Okay.

19                  MR. MULTAMAKI:  The first paragraph in  
20      Appendix E, Cruising Methodology, basically says -- or  
21      says:

22                         "The actual volumes available for harvest  
23                         were calculated from a combination of  
24                         forest resource inventory and operational  
25                         cruising information.  The OPC data gives

1 reasonably accurate volumes by species  
2 for individual stands. This is a  
3 refinement of the information supplied by  
4 FRI and it can be used to identify stands  
5 with high pulp or saw log contents. The  
6 OPC gives a breakdown by diameter class  
7 for this purpose."

8 MR. FREIDIN: Q. And in a very brief  
9 way, could you just describe what the rest of the  
10 document is?

11 MR. MULTAMAKI: A. The rest of the  
12 document contains two methods for operational cruising.  
13 The first one that you encounter in Appendix E is the  
14 cruising methodology, field instruction package for  
15 collecting purely the technical data or the timber  
16 information through strip sample methodology; in other  
17 words, it contains the field directions to a survey  
18 crew to go out and measure trees along a strip and come  
19 back with the information that we can put into a  
20 computer program and come up with reasonably accurate  
21 volumes on an area of ground or for a stand.

22 The second part of Appendix E contains  
23 the site information tally sheets that were used for  
24 the helicopter survey. We discussed that previously in  
25 Document 2.



1                   Q. Thank you. Mr. Kennedy, although Mr.  
2 Multamaki has shown his maps dealing with renewal and  
3 tending, could you briefly review the major portion or  
4 I guess the major reference in the Environmental  
5 Assessment Document that deals with the topic, the  
6 topic being again selection of areas for renewal and  
7 tending?

8                   MR. KENNEDY: A. Yes. If I can refer  
9 people to page 141 of Exhibit 4, the Class EA, there is  
10 a section that starts with the selection of areas for  
11 renewal and maintenance.

12                   I had indicated in the outset of this  
13 particular portion of the evidence that the selection  
14 was broken into two components, that that dealt with  
15 harvest and the second that deals with renewal and  
16 maintenance.

17                   In a fashion similar to the discussion on  
18 selection for harvest, there are a number of general  
19 subject areas that are considered during the  
20 development of specific selection criteria. Those are  
21 discussed in this section and start on page 142 at line  
22 13.

23                   Generally then, those areas are those  
24 areas that are expected to be renewed naturally within  
25 the five-year term, those areas that can be renewed

1       artificially. In this case we're talking of areas both  
2       areas that have become in a state of need of renewal as  
3       a result of either harvest operations or natural  
4       depletions, such as forest fires.

5               It also involves identification of areas  
6       which require tending, either to maintain or return  
7       them to a state of free to grow or to improve stand  
8       conditions. And, as you have seen in other subjects  
9       related to the development of criteria both for  
10      eligibility and selection, there is an all inclusive  
11      comment with relation to the need to identify specific  
12      areas to match or to achieve a particular management  
13      objective.

14             Q. And there is some further discussion  
15      or detail provided in relation to each of those  
16      particular subject matters, but I understand that we  
17      are not going to take the time to deal with those one  
18      at a time?

19             A. That's correct. I think that the  
20      Board has -- I would expect that the Board has had an  
21      understanding of the manner in which we are using  
22      criteria to allow us to select stands and to portray  
23      them on maps and we have covered the general subject  
24      matters in sufficient detail.

25             Q. Okay. Is there any requirement to

1 document the results of applying the renewal and  
2 tending criteria?

3 A. Yes, there is. In a fashion similar  
4 to the purposes that Table 4.15 and 4.16 serve for  
5 harvest, there is a similar table that is required in  
6 the timber management plan and that's Table 4.19. If I  
7 could direct people to that table, pages --

8 Q. Page 95.

9 A. Which is found at page 95 in the  
10 Timber Management Planning Manual, Exhibit 7. Table  
11 4.19 is titled: Forecast of Renewal and Maintenance  
12 Operations. Again, the similarity between this table  
13 and the other tables we dealt with is that the total  
14 area that has been selected for renewal and maintenance  
15 operations for the five-year term is recorded in this  
16 table on the --

17 Q. Perhaps --

18 A. I beg your pardon?

19 Q. I just wanted to interrupt to make  
20 sure people have the amended copy. There is a blue  
21 page for this.

22 A. Yes, there is a revision to this  
23 table. The particular one that I am looking at is the  
24 most recent which is dated February the 15th, 1988.

25 Q. Sorry to interrupt, Mr. Kennedy.

1 THE CHAIRMAN: Is it possible, Mr.  
2 Freidin, for the Ministry to put these pages in where  
3 they should go because we have been unable to find one  
4 of your little machines that operates this...

5 MR. FREIDIN: We have already received a  
6 request and assented to it, Mr. Chairman. I didn't  
7 know that you were excluded. But, yes, we can do it  
8 for the three Board members.

9 THE CHAIRMAN: Okay. It would make it a  
10 lot easier, otherwise we have to carry them along  
11 separately and they never get in the right spot. It  
12 would be better if we had them where they should be, I  
13 suppose.

14 MR. FREIDIN: I know all too well what  
15 you are talking about.

16 THE CHAIRMAN: Thanks

17 MR. FREIDIN: Q. Mr. Kennedy.

18 MR. KENNEDY: A. I am pleased to hear  
19 that you will undertake to do that, Mr. Freidin.

20 The Table 4.19 then is used to summarize  
21 the results of the selection process which is recording  
22 the total of the areas that have been selected for  
23 renewal. The area by forest unit or working group that  
24 is shown is intended to record the intended renewal --  
25 excuse me, intended to record the working group which



1 is intended -- the areas will be renewed to.

2 On the left-hand side of the table - I  
3 believe this table is not new to people, it has been  
4 seen in earlier evidence - in the left-hand side of the  
5 table is a discussion of the kind of renewal and  
6 maintenance treatments that are contemplated to occur  
7 on that management unit during the five-year term.

8 Q. And can you just turn over that table  
9 and look at the instruction on the back. Do you have  
10 that, Mr. Kennedy?

11 A. Yes.

12 Q. Am I correct that starting in the  
13 first full paragraph, what appears -- in the first two  
14 full paragraphs, everything except for the first  
15 sentence of the first paragraph was the subject of the  
16 amendment?

17 A. I believe you are correct. Yes, you  
18 are.

19 Q. And would it be an accurate summary  
20 of that amendment to say that it imposes a requirement  
21 to address in the plan a situation where the level of  
22 renewal and maintenance which can be achieved in the  
23 five-year term of the plan is not sufficient to meet  
24 management plan objectives?

25 A. Yes, that is the primary focus of the

1 new requirement and the revision to the table that was  
2 prepared in February the 15th, '88.

3 Q. Why was that particular revision  
4 added as a requirement?

5 A. It was recognized as something that  
6 was desirable to include into a plan and that is a  
7 discussion of the movement towards achieving the  
8 objectives.

9 We have indicated in earlier evidence  
10 when we discussed the objectives, targets, strategies,  
11 problems and issues section that we were moving towards  
12 more traceability or more observable linkages in the  
13 timber management plan relative to achieving those  
14 objectives, and we've amended this table to require one  
15 of those linkages, in this case dealing with the  
16 renewal efforts, and we feel that is something that's  
17 very important.

18 We also feel that it is important to  
19 inform members of the public as to the intended renewal  
20 program and compare it to the overall objective that  
21 are stated in the plan.

22 Q. Thank you. Mr. Multamaki, the  
23 selection criteria that you had for -- or used for  
24 renewal and tending, are they documented in your plan?

25 MR. MULTAMAKI: A. Yes, they are. If I

1 could direct the Board's attention to page 114 of  
2 Exhibit 814, Book 1.

3 Q. What was the page again, I'm sorry?

4 A. Page 114, Book 1.

5 Q. Thank you.

6 A. There is a section that starts off  
7 with B, Criteria for Five-Year Renewal and Maintenance  
8 Allocations. Under this section there are six  
9 components starting on page 114 and ending on page 115.  
10 These in fact are six criteria for selecting areas for  
11 renewal and tending.

12 The first criteria under No. 1 is simply  
13 identifying that the area scheduled for harvesting  
14 operations -- sorry, for renewal and maintenance  
15 operations are either backlog, NSR areas, areas  
16 scheduled for harvest or areas requiring protection  
17 from insects, disease or competing vegetation.

18 The criteria under No. 2 is directed at  
19 the NSR or backlog areas and simply states that those  
20 backlog areas will be -- I guess may be selected for --  
21 or is a criteria for selecting them for renewal and  
22 tending operations.

23 Under No. 3, again it deals with the  
24 accessibility question and that areas allocated for or  
25 selected for renewal and tending must be a reasonable

1 distance from access to allow for silvicultural  
2 operations.

3 4 simply states that those areas  
4 allocated for harvest are also allocated or selected  
5 for renewal and maintenance operations.

6 Under No. 5, this is tied to the jack  
7 pine budworm situation that was on the Red Lake Crown  
8 at the time that this plan was written and basically  
9 says that jack pine -- high risk jack pine stands are  
10 selected for renewal and tending operations.

11 No. 6 simply states that areas of natural  
12 disturbance may be selected -- or will be selected for  
13 renewal and tending operations.

14 Q. And could you list for the Board the  
15 sources of information which were the -- the major  
16 sources of information which were used to in fact  
17 identify those areas?

18 A. Yes. We relied on a combination of  
19 field inspections, silvicultural assessments - three  
20 basic types were survival assessments, stocking  
21 assessments and free to grow assessments. We also  
22 relied on aerial reconnaissance, both through the  
23 course of normal operations and if we required  
24 examination of a specific area on the unit. We had a  
25 limited amount of infrared photography in the Balmer



1 Township area that we used in conjunction with this  
2 planning exercise and we relied on special surveys that  
3 were conducted in the Fire 14 area in the south part of  
4 the Red Lake Crown.

5 Q. And Mr. Kennedy referred to Table  
6 4.19 as being one of the places where the results of  
7 applying the criteria was demonstrated, and I assume  
8 that you had a Table 4.19?

9 A. Yes, I did. Table 4.19 can be found  
10 on page 117 and it was --

11 Q. This table was filled out before the  
12 amendment to the columns or the categories shown on the  
13 front of the table; is that correct?

14 A. That's correct. This was prior to  
15 the amendment of 1988, and in fact it's the old style  
16 table. Again, the numbers were filled out within that  
17 table. I guess one number I should direct the Board's  
18 attention to, we have briefly discussed it in the past,  
19 is that 1,246 under subtotal for natural. In fact --

20 Q. That's in the first column, Recent  
21 Cutover?

22 A. That's right. It's under subtotal  
23 natural, in the first column underneath the first  
24 dotted line that you encounter. And in fact if you  
25 compare that back to Table 4.14 on page 16, in there we

1 had the past amount of natural was 167, in fact we've  
2 show an increase to 1,246 and I think we've pointed to  
3 this figure previously.

4 In fact what it shows is an increase from  
5 3.8 per cent to a forecast of 15 per cent of the total  
6 regeneration program will now be in natural and, in  
7 fact, we have increased our natural seeding.

8 Q. And that was -- the 3.4 per cent  
9 figure was the figure that you referred to during your  
10 evidence on the report of past forest operations?

11 A. It was 3.8 per cent in report of past  
12 forest operations.

13 Q. And the 1,246 then, which is the  
14 planned natural, is about 15 per cent of the amount  
15 that we have over on the total renewal column--

16 A. That's right.

17 Q. --over on the right of 8,184?

18 A. That's correct.

19 Q. All right.

20 A. Another point of interest is that  
21 when you compare Table 4.19 to Table 4.14, as Mr.  
22 Kennedy has previously pointed out, these tables all  
23 bear a striking resemblance to one another and the same  
24 occurs here. Table 4.14 and Table 14.19 in fact are  
25 very similar in nature and it allows you to move back

1 and forth between the two of them quite easily.

2 Q. Thank you.

3 MR. FREIDIN: Mr. Chairman, that  
4 completes the evidence on Part 10 except for a short  
5 area on contingency areas. It is almost a quarter to,  
6 I would suggest that we adjourn.

7 I think that we will -- well, we will  
8 obviously finish Document 2 and it is very difficult to  
9 predict how far we will get, but I am still hopeful of  
10 finishing this week.

11 I am just wondering if we could take two  
12 minutes to do a quick poll seeing that -- well, Mr.  
13 Edwards is gone. I was hoping he would still be here,  
14 but nonetheless, if we could take a quick poll and get  
15 an estimate of cross-examination time so that we can  
16 make the appropriate arrangements for Panel 16, et  
17 cetera.

18 THE CHAIRMAN: Well, we can try.  
19 I don't know if anyone can really predict at this  
20 stage.

21 Ms. Swenarchuk?

22 MS. SWENARCHUK: We are thinking about  
23 two days.

24 THE CHAIRMAN: Two days. Mr. Campbell?

25 MR. CAMPBELL: Being at the end, my

1 estimate is probably more difficult to make than  
2 anyone's, but I could be up to three days.

3 THE CHAIRMAN: Mr. Cassidy?

4 MR. CASSIDY: Mr. Cosman, in the last  
5 conversation I had with him which I advised the Board  
6 of, is half a day.

7 THE CHAIRMAN: Are you still working on a  
8 contingency plan should Mr. Cosman not be available  
9 when we are into that week?

10 MR. CASSIDY: That's the subject in fact  
11 of an ongoing discussion, Mr. Chairman.

12 THE CHAIRMAN: The contingency plan being  
13 one of the other four representatives of your law firm  
14 may be taking that cross-examination?

15 MR. CASSIDY: It's under discussion.  
16 That's the best I can advise.

17 THE CHAIRMAN: Just a helpful suggestion.

18 MR. FREIDIN: Mr. Chairman, I can advise  
19 by way of a letter I understand that you received from  
20 Mr. Hunter that he is estimating no longer than one and  
21 a half days, so we can put him down for that.

22 THE CHAIRMAN: And I'm not sure about Mr.  
23 Edwards.

24 MR. FREIDIN: No, and I guess --

25 THE CHAIRMAN: He was indicating he had a



1 conflict for one day, on a set specific day, and the  
2 Board's advice to him was to try and work it out with  
3 the other parties if he could.

4 MR. FREIDIN: Yes, Mr. Chairman. Well,  
5 we have OFAH's original estimate of five days.

6 This is obviously an iterative process  
7 and I'm sure we will revisit this matter later and  
8 parties on all sides will probably be thinking about  
9 perhaps adjusting their estimates.

10 THE CHAIRMAN: That looks likes 13 days  
11 to me on a quick run through.

12 MR. FREIDIN: I think originally when we  
13 just ballparked it we thought three weeks, three  
14 working weeks. Now, if you have got 13 days and we are  
15 sitting three-day weeks, then I suppose that is four  
16 and a half plus weeks, but that's -- I can't argue with  
17 the numbers.

18 THE CHAIRMAN: Well, no, you can't argue  
19 with the numbers, but the Board can suggest to the  
20 parties to maybe redo their mathematics and see if they  
21 can't come up with something that's less than 13 days.

22 MR. FREIDIN: Thank you, Mr. Chairman.

23 THE CHAIRMAN: Thank you.

24 I think we will adjourn until 8:30  
25 tomorrow morning. Thank you.

1 ---Whereupon the hearing adjourned at 4:45 p.m., to be  
2 reconvened on Wednesday, September 20th, 1989,  
3 commencing at 8:30 a.m.  
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